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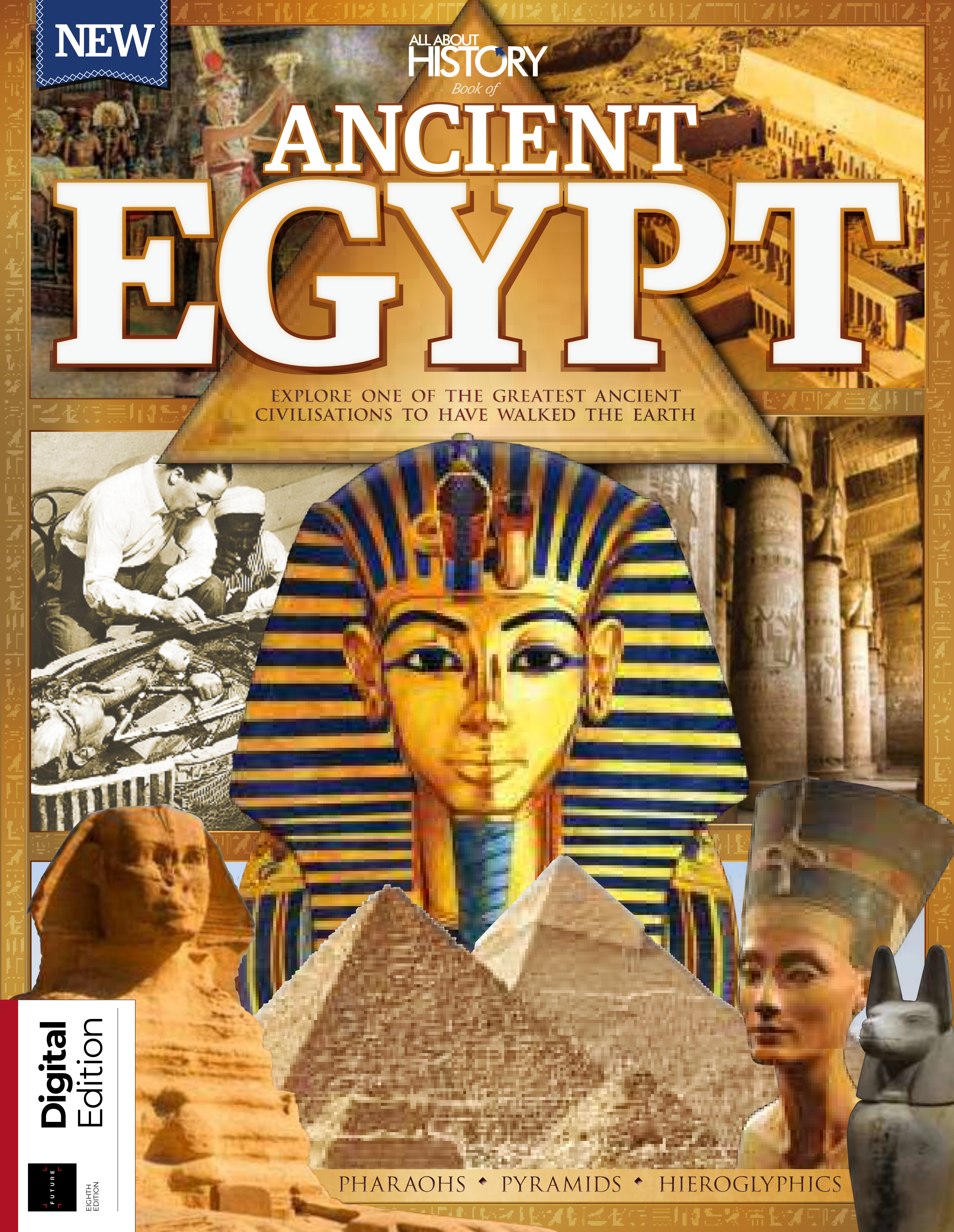
ANCIENT EGYPT

EXPLORE ONE OF THE GREATEST ANCIENT CIVILISATIONS TO HAVE WALKED THE EARTH



PHARAOHS ◆ PYRAMIDS ◆ HIEROGLYPHICS

Digital Edition

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EIGHTH EDITION

Welcome to

ALL ABOUT HISTORY
Book of

ANCIENT EGYPT

In 1922 a magnificent discovery captured the attention of the world. As Howard Carter slowly unveiled the opulence of Tutankhamun's newly located tomb, people from every corner of the world were enthralled. Egyptomania gripped the world. The rituals and beliefs of a highly advanced society were once again exposed; this was the most influential breakthrough in Egyptology since the Rosetta Stone had been discovered by Napoleon's men and later deciphered by 19th century scholars. In this sixth edition of All About History's Book of Ancient Egypt, we will step back in time and walk the banks of the River Nile to learn what made this society one of the most powerful ancient civilisations in history. We'll introduce you to some of the most iconic and infamous pharaohs, tour the awe-inspiring landmarks raised in their honour and identify the religious tenets that guided everyday life in Egypt. You'll explore the grisly burial rituals that ensured safe passage to the afterlife and even learn to read the hieroglyphics that adorn surviving monuments and papyri – all through amazing articles, illustrations and photography.
It's time to walk like an Egyptian!

FUTURE

Book of
ANCIENT EGYPT

Future PLC Quay House,
The Ambury, Bath, BA1 1UA, UK

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Cover images
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Printed in the UK

Distributed by Marketforce, 5 Churchill Place, Canary Wharf, London, E14 5HU
www.marketforce.co.uk Tel: 0203 787 9001

Book of Ancient Egypt Eighth Edition (AHB4964)
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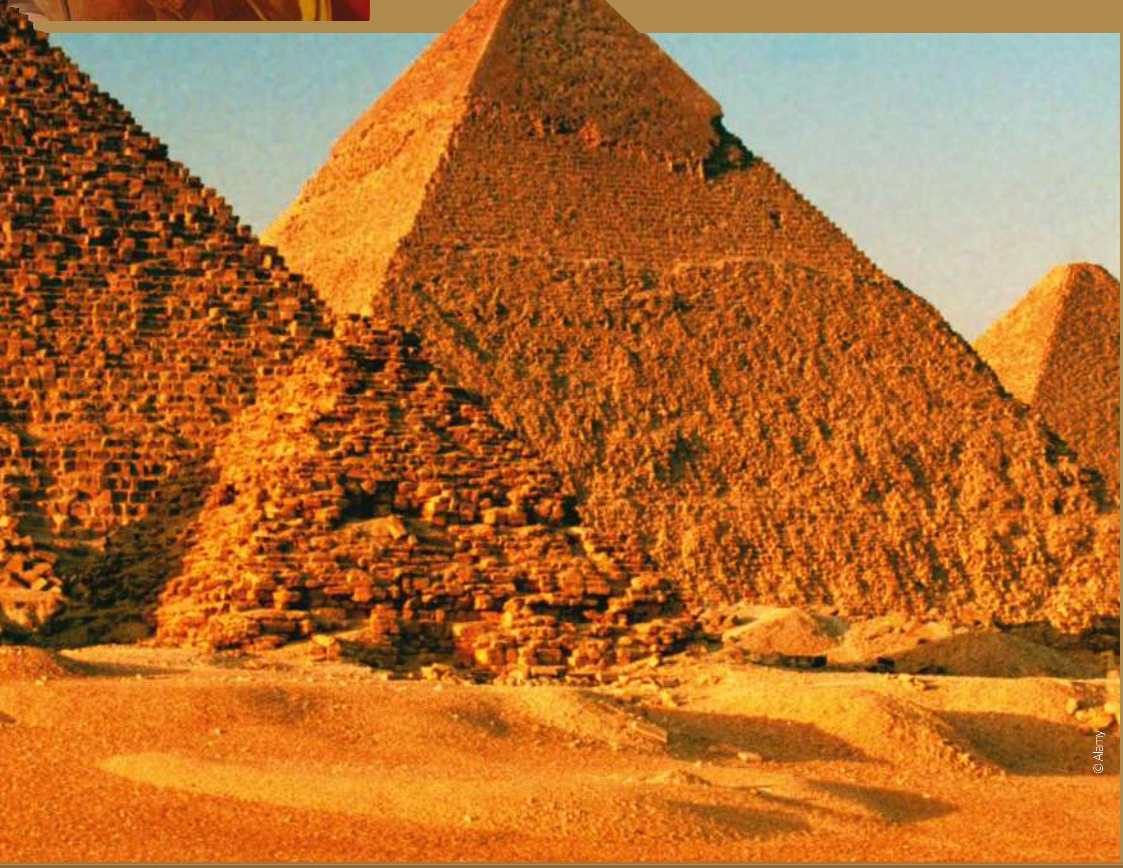
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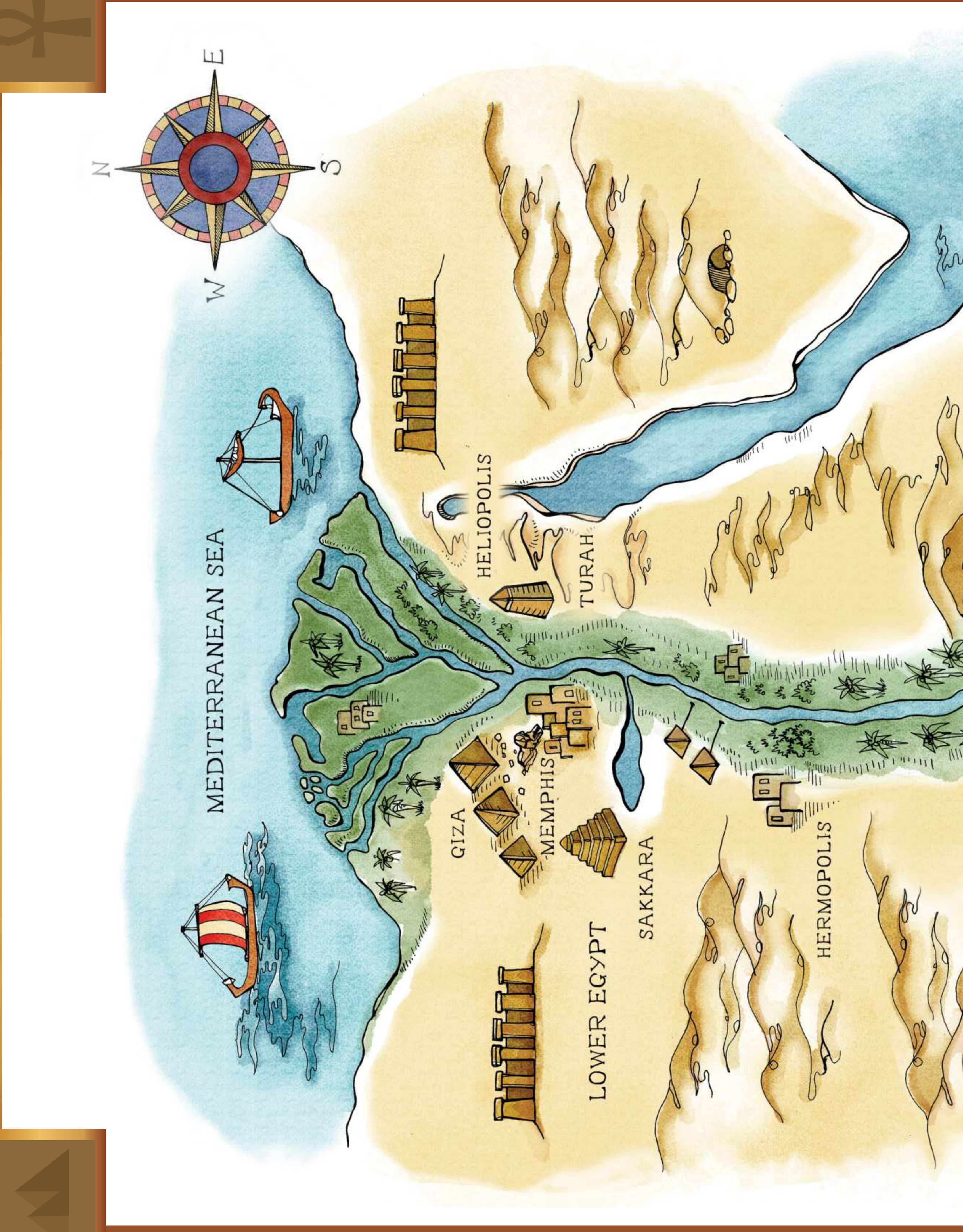
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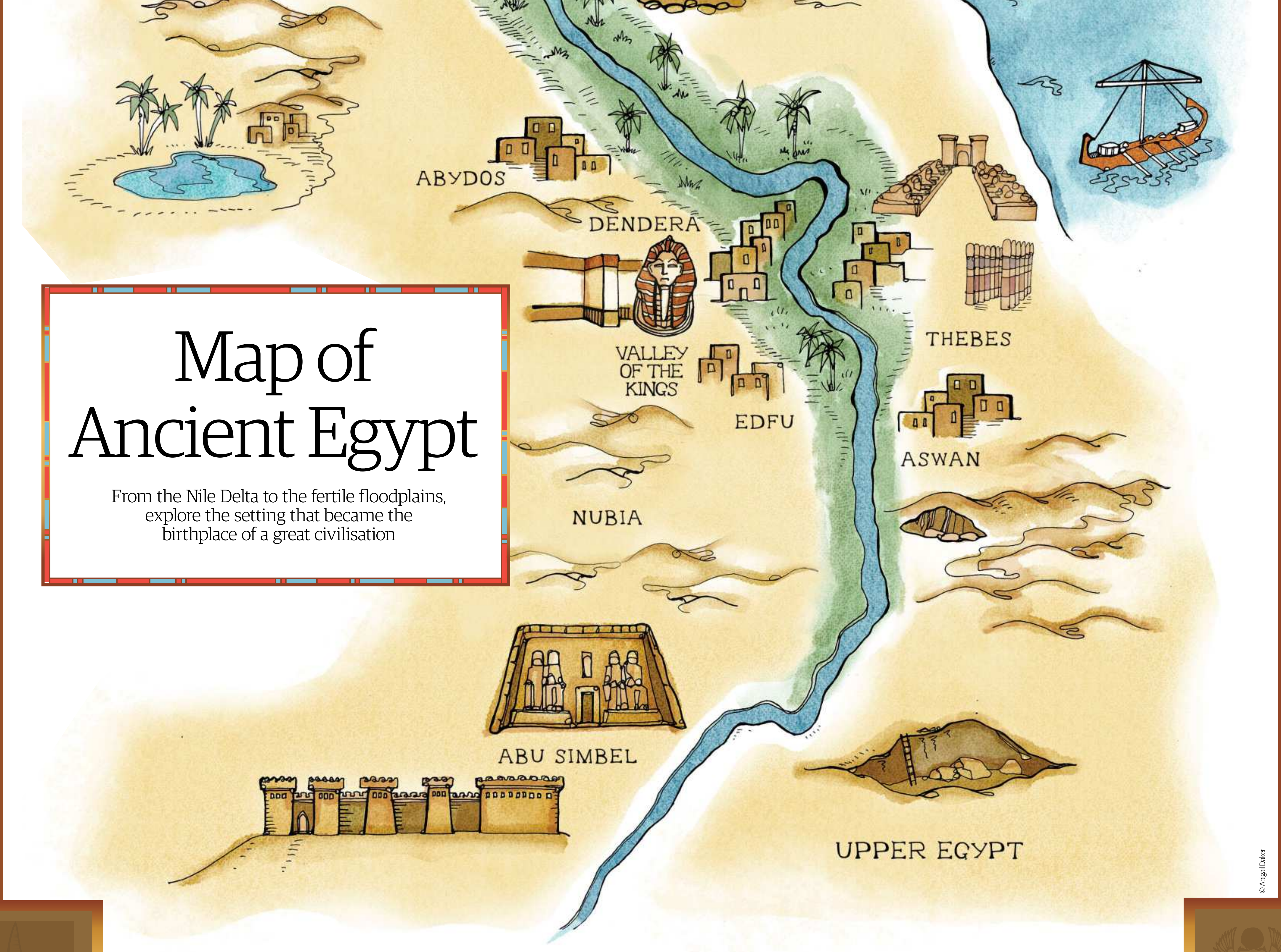
TURAH
GIZA
MEMPHIS
SAKKARA
LOWER EGYPT
HERMOPOLIS

Map of Ancient Egypt

From the Nile Delta to the fertile floodplains, explore the setting that became the birthplace of a great civilisation


ABYDOS
DENDERA
VALLEY OF THE KINGS
EDFU
THEBES
ASWAN
NUBIA
ABU SIMBEL
UPPER EGYPT

© Abigail Daker

Ancient Egypt, 3300-30 BCE

The pyramids in Giza form part of the Giza Necropolis, which also contains the Sphinx

The Age of the Pyramids

2700 BCE - 2200 BCE

Ancient Egypt saw a number of phases of pyramid building, but those built during the third and fourth dynasties became the most iconic. Built almost solely as pharaohs' tombs, the most famous are in Giza: the Great Pyramid of Giza (Pyramid of Khufu), the Pyramid of Menkaure and the smaller Pyramid of Khafre. These colossal structures, built between 2560 BCE and 2510 BCE, are part of Seven Wonders of the World and stand as a testament to the ingenuity of Ancient Egyptian society and culture.

The Golden Age

2613 BCE - 2494 BCE

The Fourth Dynasty is often referred to as the Golden Age, when the entire nation benefited from a boom in arts and culture. The relative peace of the previous dynasties continued, enabling the pharaohs of the era to realise their architectural aspirations. The Old Kingdom (the third to sixth dynasties) is often referred to as the Age of the Pyramids; almost every ruler had a pyramid tomb constructed in their honour). Such structures would have required huge work forces, with many Egyptologists believing a complex form of government must have been created to organise them.

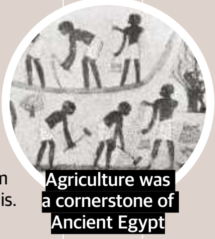
A lack of foreign incursions and major invasions left the Old Kingdom a relatively peaceful period

First hieroglyphics used
Hieroglyphics are first used by the many tribes and peoples of Egypt during the Predynastic period.
3300 BCE

Hieroglyphics continued to be used up until the fourth century CE

The Old Kingdoms
During the fourth to eighth dynasties, the Great Pyramids are erected in DahShur and Giza. They are considered one of the Seven Wonders.
2575-2150 BCE

Rejuvenation of the Faiyum
Much of the Egyptians' longevity comes from the successful implementation of agriculture – Faiyum is a main site for this.
1900 BCE


Agriculture was a cornerstone of Ancient Egypt

Rise of Thebes
For years, Memphis has remained the largest hub of the Egyptian realm, but Thebes has now become the largest and most populous city.
1800 BCE

Hyksos raiders invade
Hyksos raiders (a Semitic people from Asia) invade the Delta. They establish themselves and eventually introduce the chariot.
1630 BCE

King Thutmose III rises to power
One of the most powerful and long-lasting rulers, Thutmose III's many successful military campaigns bring new wealth to Egypt.
1400 BCE

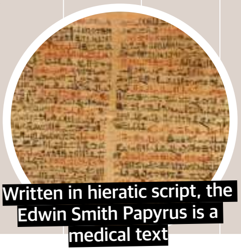
3300 BCE | 3100 BCE | 2900 BCE | 2700 BCE | 2500 BCE | 2300 BCE | 2100 BCE | 1900 BCE | 1700 BCE | 1500 BCE

Narmer becomes first pharaoh
Narmer is believed to have united the sophisticated neolithic states into the first Egyptian kingdom, making Memphis his new capital.
3100 BCE

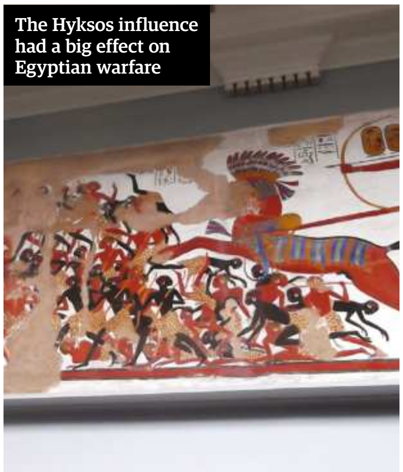
First pyramid built
The very first pyramid, the Step Pyramid, is erected in Saqqara for King Djoser, the second ruler of the Third Dynasty.
2950-2575 BCE

First intermediate period begins
After the government falls apart at the end of the Old Kingdom, Ancient Egypt divides and civil wars erupt.
2125-1975 BCE

11th-14th dynasties established
The Middle Kingdom begins, and with it comes a new era of stability as the warring regions are united once again.
1975-1640 BCE


Written in hieratic script, the Edwin Smith Papyrus is a medical text

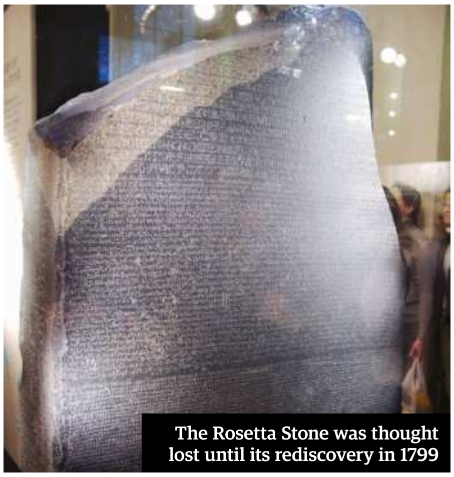
Ahmose I unifies Egypt
With control of Upper Egypt, Ahmose I successfully drives the Hyksos from Lower Egypt to unify the country for the first time in 160 years.
1523 BCE


The Hyksos influence had a big effect on Egyptian warfare

The Hyksos rule over Egypt

1650 BCE - 1550 BCE

It is estimated that the invading Hyksos warriors remained in power for 100 to 160 years. From a region of Western Asia known as Canaan, they took advantage of civil unrest among the Egyptian states and conquered Lower Egypt. The 15th Dynasty saw the introduction of chariots and composite bows, as well as new advances in pottery and agriculture.


The Rosetta Stone was thought lost until its rediscovery in 1799

Rosetta Stone is carved

196 BCE

Commissioned and carved during the reign of Ptolemy V, the Rosetta Stone is a relic of huge historic importance. It was written in two languages (Egyptian and Greek) to reflect the two main bloodline dynasties of Egyptian history, and three separate scripts (hieroglyphic, demotic and Greek) to represent the vast cultural cross-section of the kingdom. Used as a religious document at the time, the Rosetta Stone has proved invaluable in helping modern linguists understand the use of language in Ancient Egypt.

The Amarna Revolution

1370 BCE

Setting aside foreign invasions and occupations, some of the biggest upheavals endured by Ancient Egyptians came from within and systematically altered the very fabric of society. The Amarna Revolution, which saw the pharaoh King Amenhotep IV outlaw the polytheistic practices that influenced everything from art to religion in favour of worshipping a single god, was one such upheaval. When Amenhotep IV inherited the throne from his father, he took the name Akhenaten, moved the country's capital to present-day Tel el Amarna and began defacing temples across the land. Such a central focus on domestic changes caused a great deal of territory in Asia to be lost.

The revolution came to an end when Tutankhamun inherited the throne, returning Egypt to polytheism

The rule of the Greeks

332 BCE - 30 BCE

The arrival of Alexander the Great, a Macedonian conqueror and member of the Argead Dynasty, changed Ancient Egypt forever in 332 BCE. It brought about the end of the classical Egyptian dynasties (which had numbered 30) and altered everything from laws to education and culture. By the time of Alexander's arrival in Egypt, the nation was under Persian rule and its leaders had no desire to go to war with the vengeful Greek king, so control of the country was handed over peacefully. Under a new Ptolemaic Dynasty (beginning with Ptolemy I, naturally), Egypt received something of a rejuvenation now that it formed part of the Alexandrian empire.

Following Alexander's death, Ptolemy Lagides became the new satrap of Egypt

A peaceful kingdom
Egypt continues to prosper, with King Amenhotep III becoming famous for beautifying the kingdom during his peaceful reign.
1390 BCE

The Luxor Temple is one of six that sit along the East Bank of the Nile

Belief in one god
The son of Amenhotep III, Akhenaten shocked the Egyptian world by discarding the old religious doctrines and focusing on one god, Aten.
1349 BCE

Tutankhamun becomes king
After the religious upheaval of his father's tumultuous reign, the child prince becomes king and returns Egypt to polytheism.
1333 BCE

Rameses II rises to power
Known as Rameses the Great, he rules for a staggering 90 years.
1279 BCE

Nubians conquer Egypt
The 25th Dynasty begins with the successful Nubian invasion by leader Kashta. Egypt becomes part of a much larger realm.
1075-715 BCE

Persian king Cambyses II invades
The Egyptian throne is transferred from pharaoh Psamtik III following the Battle of Pelusium.
525 BCE

Nectanebo I started the 30th Dynasty

Final dynasty
The 30th and final dynasty before the Ptolemaic era begins with the reign of Nectanebo I. The final dynastic king is Darius III Codoman.
380 BCE

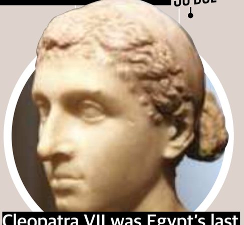
Alexander the Great conquers Egypt
The Macedonian conqueror marches on Egypt, encounters some resistance, but is mostly hailed as a liberator.
332 BCE

Alexander's acquisition of Egypt was a relatively peaceful process

The Ptolemaic line begins
Having become satrap in 323 BCE after Alexander the Great's death, General Ptolemy Lagides declares himself king.
305 BCE

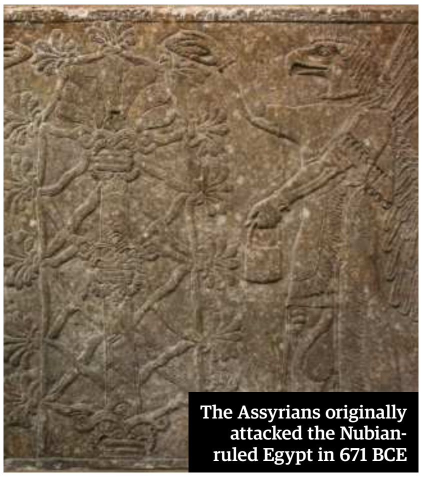
Cleopatra VII begins her reign
The final monarch of the Ptolemaic Dynasty begins with the Shakespeare-muse Cleopatra.
51 BCE

Cleopatra and Mark Antony lose the Battle of Actium
Octavian, future emperor, destroys the naval forces of Egypt – this facilitates its eventual absorption into the Roman Empire.
31 BCE



Cleopatra VII was Egypt's last monarch before it became part of the Roman Empire

1300 BCE 1100 BCE 900 BCE 700 BCE 500 BCE 300 BCE 30 BCE

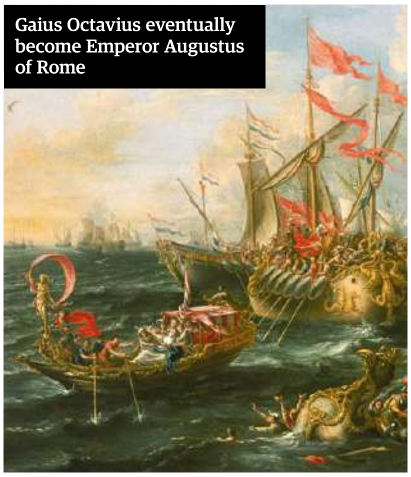


The Assyrians originally attacked the Nubian-ruled Egypt in 671 BCE

Era of foreign rule

728 BCE - 332 BCE

The history of the Egyptian throne is a multicultural affair. For all the pharaohs who could call the land on which they ruled their homeland, there were others who simply invaded and took the entire country, or a major portion of it for themselves. The biggest successive period of foreign rule started with the invasion by Nubian King Piy in 728 BCE. The Nubians were then driven out by Assyrians in 669 BCE, followed by the arrival of the Persians in 525 BCE.

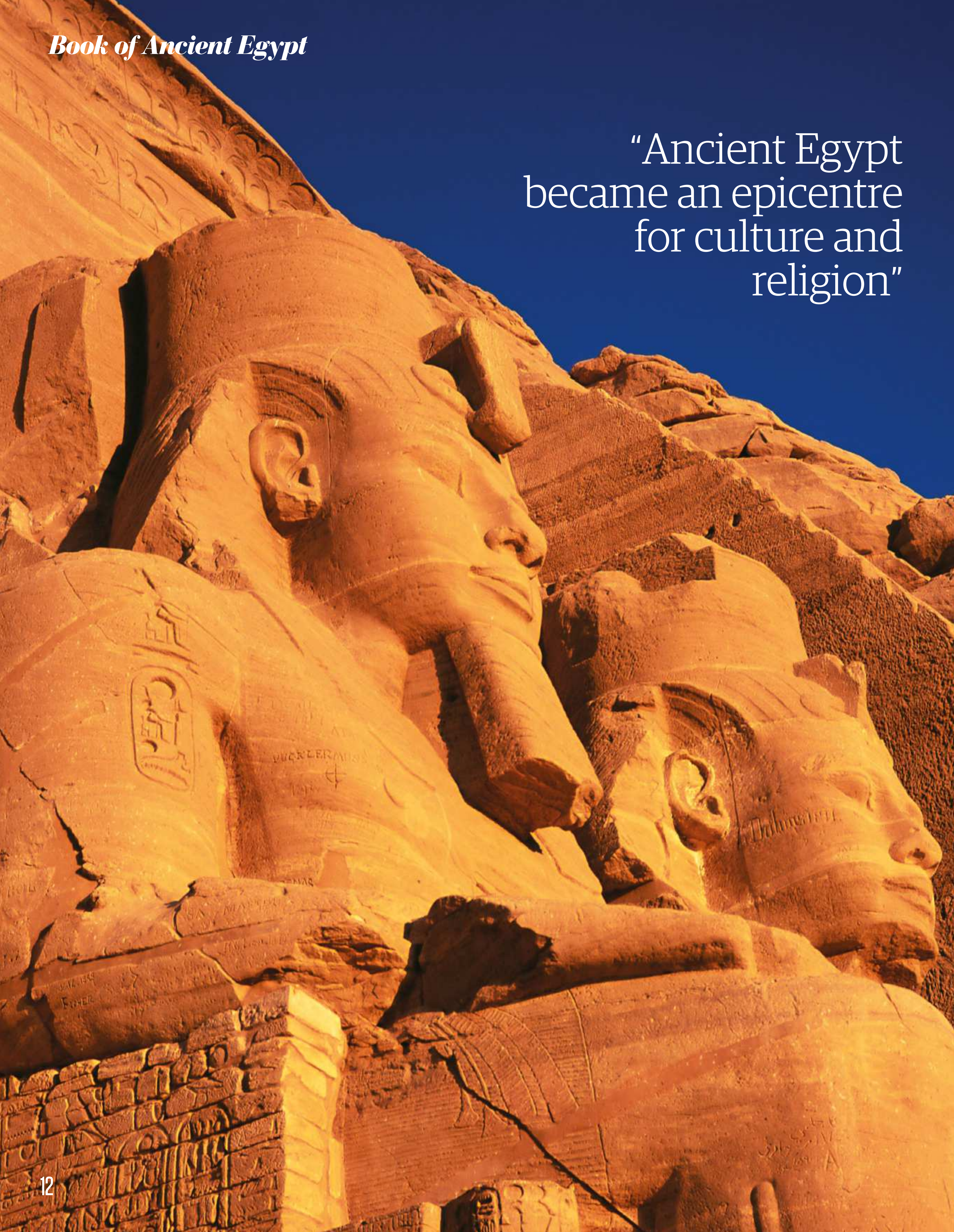


Gaius Octavius eventually become Emperor Augustus of Rome

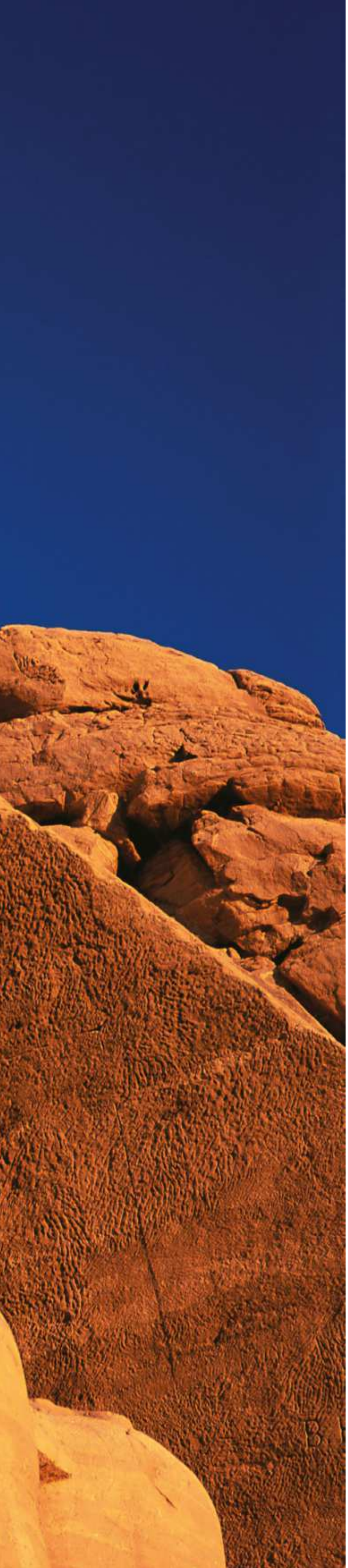
Battle of Actium

31 BCE

When Roman general-turned-politician Marc Antony married queen Cleopatra VII, it seemed the two nations would finally be united. However, following the assassination of Julius Caesar, Rome was in turmoil. With the Republic failing, Caesar's maternal great nephew Gaius Octavius challenged the might of Cleopatra's naval fleet in 31 BCE. His forces crushed it, eventually leading to Egypt's assimilation into the newly formed Roman Empire.



"Ancient Egypt became an epicentre for culture and religion"



Kingdoms of Ancient Egypt

Spanning many eras, the New, Middle and Old Kingdoms would see the pharaohs reach the peak of their power and Egyptian culture soar

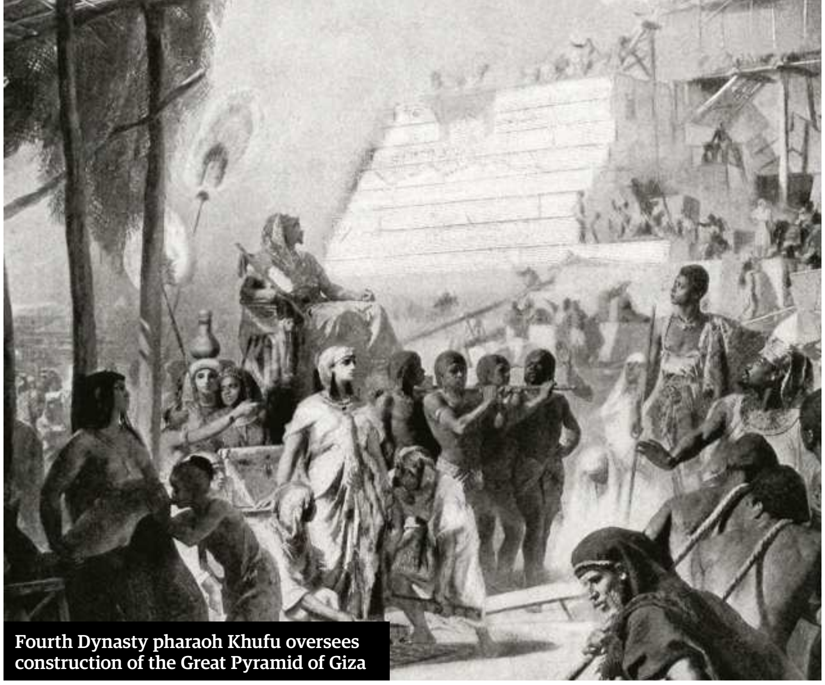
For 3,000 years the Ancient Egyptian empire endured. It emerged, like so many other independent kingdoms, from the ruins of warring and fragmented fiefdoms and grew into a nation that shook North Africa and the surrounding world to its core. It became an epicentre for culture and religion, where science and magic were intertwined as one. But those golden ages, those heights of human achievement that challenged even those of Greece and Rome at their peaks, were not achieved in a day.

Before the Assyrians came, before the Persians invaded, before the Greeks conquered and the Romans annexed, the Egyptians rose and fell all by themselves. While darker periods would form between them (three in fact, known as the Intermediate Periods), the timeline of Ancient Egypt has been defined by three distinct eras: the Old Kingdom, the Middle Kingdom and the New Kingdom. A time of cultural rebirth and monumental construction, it was during the Old Kingdom that iconic structures that have endured millennia were built. The Middle Kingdom was when a nation was unified and forged anew. Then the realm was aggressively expanded and culture fostered like never before in the New Kingdom.

Ancient Egypt wasn't just an era of military conquest and expansion, it was a time of innovation too. The Egyptians invented early forms of cosmetics, including eye makeup; they were one of the first civilisations (alongside Mesopotamia) to evolve a robust written language; they created papyrus thousands of years before the Chinese produced paper; they designed the basic calendar structure that we still use today; they can even lay claim to inventing bowling and early forms of breath mints.

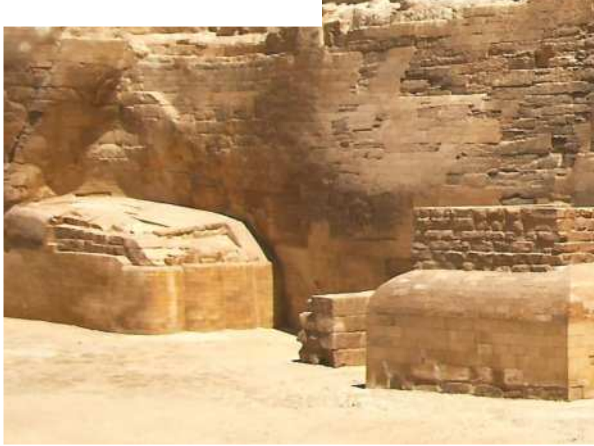
In short, they were a nation the like of which we've never seen before or again. Gods, pharaohs, pyramids, mummification, agriculture and much more helped to define the Ancient Egyptians as one of human history's most fascinating and intelligent civilisations.

The invasions of Egypt led to new cultural aspects being embedded into society, such as the use of horses and chariots



Fourth Dynasty pharaoh Khufu oversees construction of the Great Pyramid of Giza

Tomb art from the Old Kingdom



The Old Kingdom

A time of rebirth, the Old Kingdom saw the introduction of the first pharaoh, dynasty and pyramid to the world

Prior to the Old Kingdom, in an era known as the Predynastic, Prehistoric or Protodynastic Period, Egypt was going through something of a transformation. The nation was divided into colonies, each with their own lords and rulers. The north and south of the country were also distinct in both practices and culture, with Hierakonpolis the capital of the south and Bes the capital of the north.

Excavations over the last century have radically changed the way we view Egypt prior to the Old Kingdom, including the fact that the First Dynasty and the rise of Narmer was not an overnight process. Upper Egypt, the more affluent of the two states, had three main cities – Thinis, Nekhen and Naqada. One by one, these states conquered one another or merged, and by about 3100 BCE, Egypt emerged as one whole state with the warrior pharaoh Narmer at its head. Two dynasties followed his founding during a period known as the Early Dynastic Period, and it was here that the blueprint for the Old Kingdom was forged. Memphis became the capital and Abydos the religious epicentre. Even architecture and the arts began to approach the classical Egyptian form at this time. The Old Kingdom began in about 2686 BCE, with the formation of the Third Egyptian Dynasty. The term 'Old Kingdom' was introduced by 18th-century historians and is used broadly to signify the first of three peaks of Egyptian civilisation. Often referred to as the 'Age of the Pyramids', the Old Kingdom saw Egypt nurture every aspect that would make it great. From the Third Dynasty and its first pharaoh, Djoser, to the apparent last king of the Sixth, Netjerkare Siptah, the nation was transformed into a cultural and military powerhouse.

The pyramids are a symbol of this era, and the template for these monumental icons began in the reign of Djoser. His vizier and closest adviser, Imhotep (who would be deified in generations to come as a demigod and god of healing) was the architect behind the Pyramid of Djoser, and his designs were a significant leap in engineering in Ancient Egypt. Prior to Djoser, kings were buried in rectangular, flat-roofed tombs called mastabas, but the Third Dynasty's founder desired immortality in death by means of a tomb worthy of a divine ruler. Imhotep's revolutionary design, stacking squared versions of *mastabas* on top of

Famous faces through time

Uncover the celebrities of each kingdom of this great civilisation

The Old Kingdom

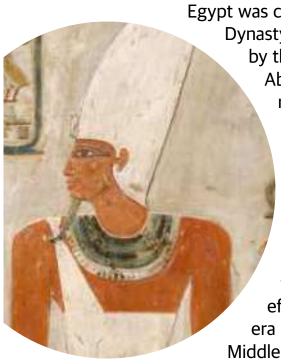
Djoser c. 2670 BCE

Of all the kings that ruled Egypt in the infant years of the Old Kingdom, the pharaoh Djoser is perhaps the most influential. He may not have been the man who united Egypt as one in Narmer, but he typified two characteristics that would go on to define Ancient Egypt. He conducted military campaigns that solidified and expanded the borders of the empire while nurturing the growth of his nation's culture. He also commissioned the first pyramid on Egyptian soil; the Step Pyramid at Sakkara was the blueprint for pharaonic splendour and inspired future generations to build even greater examples.

The Middle Kingdom

Mentuhotep II 2061 BCE – 2010 BCE

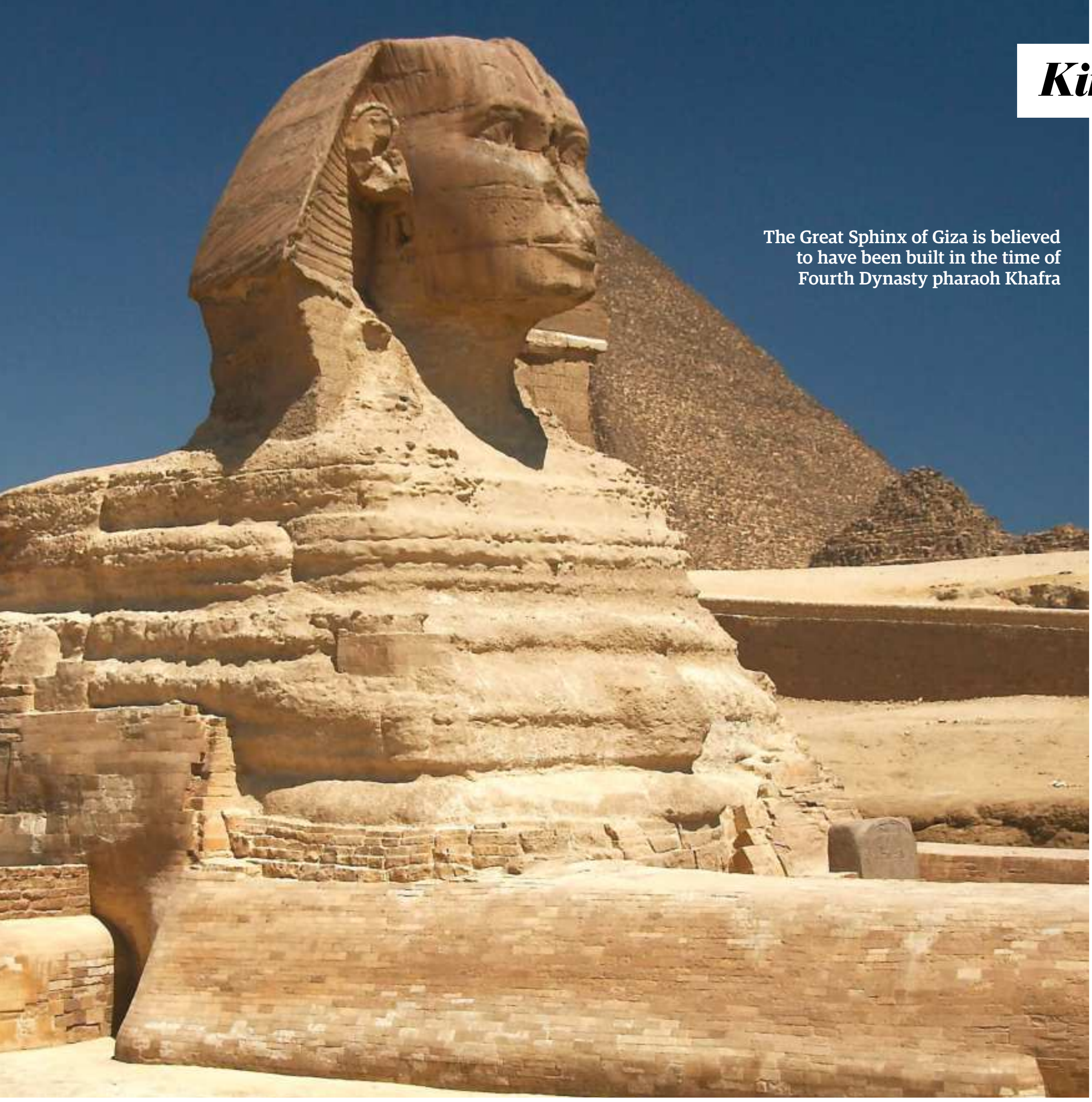
The kingdom splintered after the prosperity and expansion of the Old Kingdom. This mini dark age of sorts was known as the First Intermediate Period and saw Egypt divided by two competing dynasties. Lower Egypt was controlled by the Tenth Dynasty and Upper Egypt by the Theban Dynasty. About 14 years into his reign, Mentuhotep II had grown tired of the stalemate and attacked the Lower Egypt capital of Herakleopolis. He eventually broke the rival dynasty, unified the two realms and effectively founded the era now known as the Middle Kingdom.



The New Kingdom

Ramesses II 1279 BCE – 1213 BCE

Tutankhamun may be the most recognisable pharaoh, but King Tut's reign was a speck of Egyptian sand compared the power, influence and achievement of Ramesses II. The third pharaoh of the 19th Dynasty, Ramesses II took an already prosperous kingdom and made it greater and grander than it had ever been. He expanded its borders, conquering Canaan and subduing everyone from the Nubians to the peoples of the Levant. He was also a prolific builder of monuments and temples and even went as far as constructing his very own capital city, Pi-Ramesses.



The Great Sphinx of Giza is believed to have been built in the time of Fourth Dynasty pharaoh Khafra

one another to create a pyramid, created the jewel in the king's rebuilt kingdom. A grand necropolis, a symbol of the enduring Ancient Egyptian reverence for death, surrounds it and the finished article would go on to inspire pharaohs for generations to come.

The grandeur of the Step Pyramid (the Pyramid of Djoser) at Sakkara wasn't lost on those who followed in Djoser's footsteps. By the time that the Fourth Dynasty kings were ruling over Egypt (2613 BCE - 2498 BCE), a new set of pyramids were forming. The Fourth Dynasty is considered the 'golden age' of the Old Kingdom, the very peak of prosperity. The economy was thriving thanks to a peaceful realm and open trade routes with its neighbouring nations. As with every peaceful period of Ancient Egypt, a spree of construction swept the nation.

Khufu, the second pharaoh of the Fourth Dynasty, was the man to create a monument so grand it would eventually be named one of the Seven Wonders of the Ancient World: the Great Pyramid of Giza. Built over a two-decade period, the 146.5 metre-high structure was a feat of engineering that put even Imhotep's Step Pyramid in Sakkara to shame. Giza would become the site of many more pyramids and temples, known as the Giza Necropolis. The Giza Pyramid became the pinnacle of pyramid design in Egypt and it would remain the tallest man-made structure for a staggering 3,800 years. It served as a testament to the power of the pharaohs and the enduring potency of the many Egyptian gods.

The Fifth Dynasty of Ancient Egypt (2498 BCE - 2345 BCE) saw an evolution of theological practices across the entire nation, with certain cults growing in prominence (gods rose and fell in popularity, and usually those favoured by a particular dynasty or geographically important location were able to survive obscurity). The Cult of Ra (god of the noon sun) and the Cult of Osiris (god of the afterlife) rose significantly in popularity during this period of time.

The Egyptian economy was also booming, with the influx of goods like ebony, gold, myrrh and frankincense growing all the time. The Egyptians pushed their trading boundaries even further with agreements with Lebanon and modern-day Somalia. In short, it was a time of enterprise without the fear of invasion or war. This economic strength bled into the Sixth Dynasty (2345 BCE - 2181 BCE), as did the growing popularity of the inscription of spells and incantations inside burial chambers and tombs. Known commonly as the Pyramid Texts, these inscriptions would form the basis of the *Book of the Dead*.

> The Old Kingdom boasted a strong centralised administration from the capital of Memphis

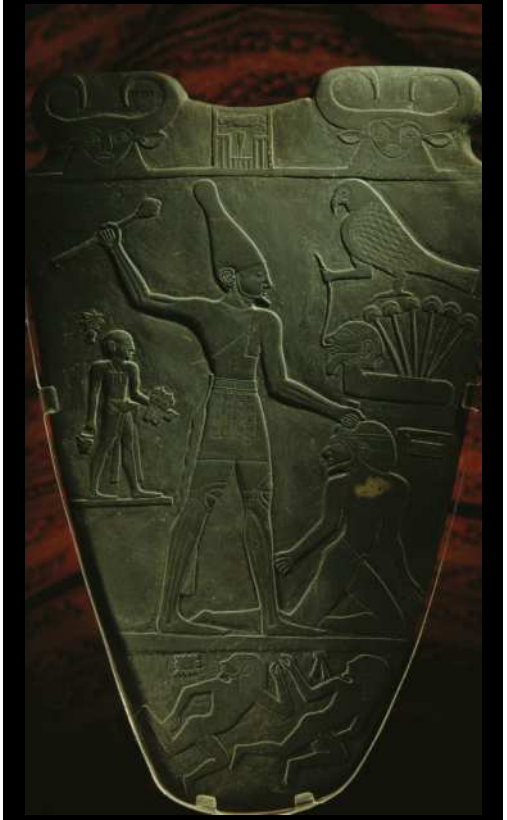
Ancient Egypt's first pharaoh

Who was the man who unified two distinctly different halves of the same realm and set the stage for the Old Kingdom period?

The Old Kingdom was the first true age of prosperity and progress for Egypt, but it would have been nothing without the two dynasties that came before it and the man who founded the pharaonic line to begin with. That man was Narmer and, much like many of the leaders and radicals who changed history in the post-neolithic world, he is a man steeped in myth, legend and mystery. Nevertheless, his actions and decisions at the beginning of the First Dynasty set the precedent for the 29 others that would follow.

Narmer ruled sometime during the 31st century BCE and became the first man to unite the states of Upper Egypt and Lower Egypt. Of course, for an event that happened so far back in prehistory, most of the information we have comes from references found in tombs and the conclusions drawn by Egyptologists and historians, but there are some intriguing details we can take from them.

Seal impressions found in tombs at Abydos linked to the pharaohs Qa'a and Den (both of whom ruled, to the best of our knowledge, after Narmer during the First Dynasty) cite a list of ancient kings that name Narmer as the first. There have even been stone vessels (elaborate vases) found in the Step Pyramid tomb of Djoser that pay tribute to Narmer, perhaps expressing an intended connection with the founder and his way of life. Some historians argue that a ruler by the name of Menes was in fact the founder of founders, while others theorise Narmer and Menes were one and the same.



There's even an argument that Narmer is a pseudonym for the mysterious monarch King Scorpion, but currently no evidence exists to corroborate this claim

The Middle Kingdom

Once again divided and once again whole, Ancient Egypt rose from its own ashes to become a military and cultural powerhouse

For every period of greatness and monumental achievement in Ancient Egypt's history, there is a stretch of time where governments crumbled, territories divided and the nation fell into a dark lull. As the royal hold on the country fell apart towards the end of the Old Kingdom, Egypt was plunged into an era of uncertainty that is referred to as the First Intermediate Period.

To make matters worse, the power of the pharaoh was splintered when two rival dynasties began vying for power – the Tenth Dynasty (based in Herakleopolis, the principal city of Lower Egypt) and the 11th Dynasty (centralised in Thebes, Upper Egypt). This period of conflict and dissention lasted for 125 years, until the reign of Theban pharaoh Mentuhotep II.

Ascending to the Upper Egypt throne in 2055 BCE, Mentuhotep II watched as the Tenth Dynasty began to destabilise with in-fighting and regular riots. In his 14th year of regnal rule, the Theban king took full advantage of revolt and attacked Herakleopolis. By the time of his arrival, there was barely a battle to be had, and the city, and the rest of the region as a result, were taken. He quelled what little resistance could be offered by the remaining rulers of the decaying Tenth Dynasty then set about reunifying the kingdom as one.

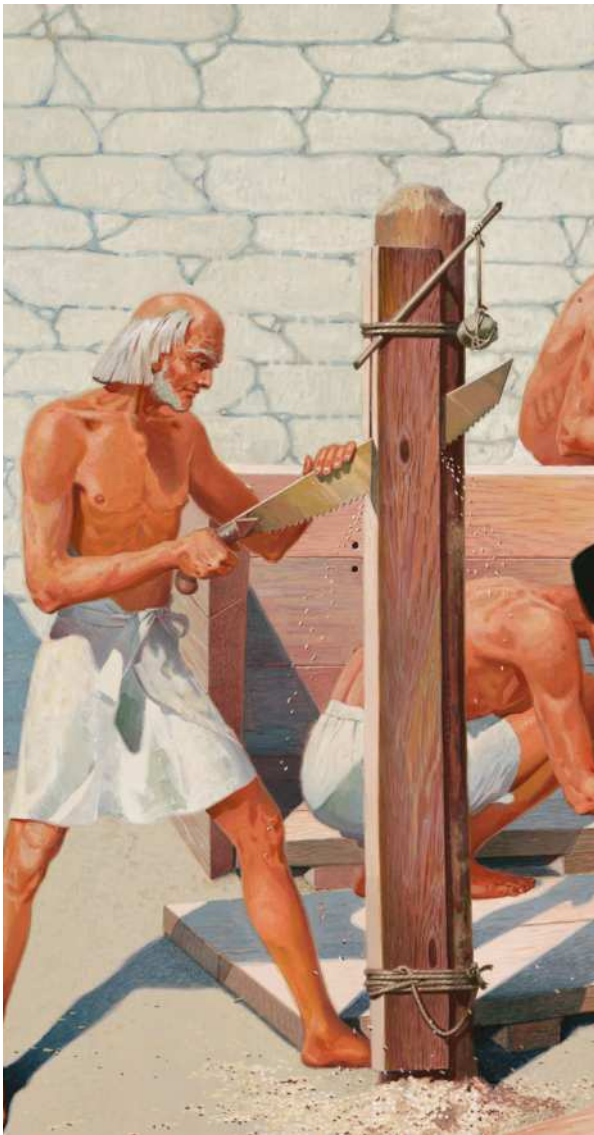
Such a task was not quick, taking a staggering 21 years to bring the Lower and Upper regions into line. He began by conducting a series of military campaigns to regain the territories lost during the dark time of the First Intermediate Period. He travelled south to the Second Cataract in Nubia, a region that had gained independence from its masters. Mentuhotep II brought the Nubians to heel before restoring Egyptian authority in the Sinai region. It was a ruthless expression of power in an era when authority was a long forgotten force.

His consolidation of power in Egypt and efforts towards unifying the nation ushered in what we now know as the Middle Kingdom, and that effort was continued by his son and successor Mentuhotep III. His rule was brief by pharaonic standards (a mere 12 years) but he further accelerated the unification, including an expedition to retake Punt (an old trading partner of Egypt). The throne then passed to Mentuhotep IV, whose reign remains something of a mystery. His name is often omitted from lists of kings found in tombs through the Middle and New Kingdoms, suggesting his rule was a short one and ended abruptly.

The *Turin Papyrus* (otherwise known as the *Turin King List*) is one such document; it describes the period following Mentuhotep III's death as "seven kingless years". Information regarding the 'missing king' remains frustratingly scarce, but some details suggest a coup of sorts may have taken place.

Records found at Wadi Hammamat, a large mining region in ancient times, do attest to his reign and make reference to expeditions to quarry stone for monuments. The records name a vizier,

Rock tombs of Beni Hasan, an Ancient Egyptian burial site primarily used during the Middle Kingdom



Amenemhat, as its commander. Whether or not this is the same Amenemhat that would eventually assume the throne, we cannot know for sure. However, it certainly seems likely.

So began the next dynasty with Amenemhat I at its head. He began by moving the capital back to Memphis (the capital during the Old Kingdom), as well as forming a standing army (an asset his successors would maintain for the rest of the dynasty).

The new king began fortifying the country's borders, especially those between Egypt and Asia, where he erected the Walls of the Ruler in the East Delta. In fact, Amenemhat I rebuilt or built new fortifications all around Egypt, transforming military strategy from expansion to simple defence.

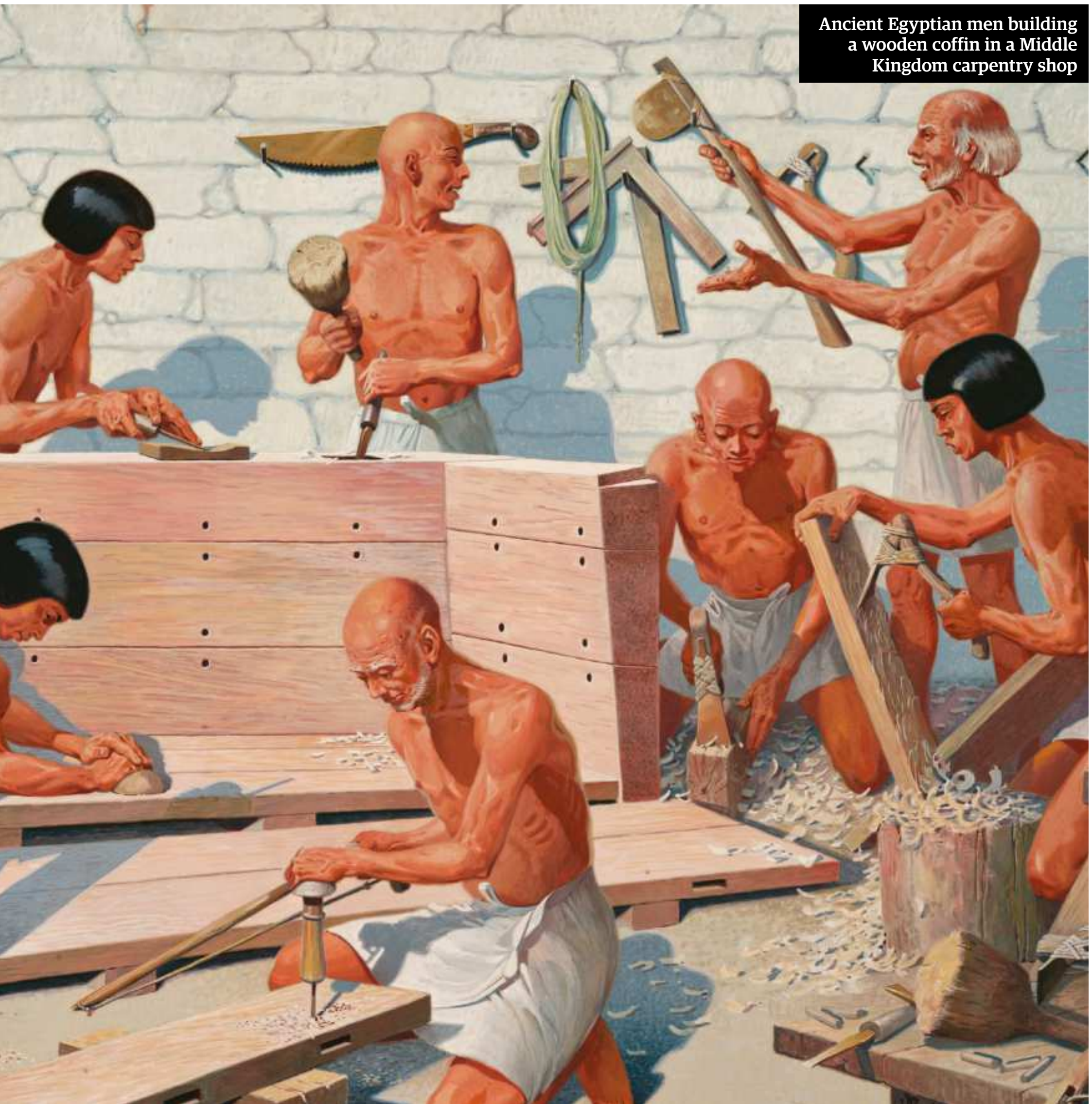
Amenemhat I would eventually begin a co-regency with his son, Senusret, before the elder king was assassinated – supposedly by his own guards. His successor, now Senusret I, began a more expansive series of military campaigns before eventually entering a co-regency with his own son, Amenemhat II. His son enjoyed a relatively peaceful reign of his kingdom and eventually chose a traditional joint rule with his successor, Senusret II. The new pharaoh focused mainly on the maintenance of the realm, building a pyramid at el-Lahun as well as attempting to convert the Faiyum oasis into workable farmland.

Under the sole rule of his successor Senusret III, the Middle Kingdom enjoyed the peak of its power and influence. The new warrior king was unlike anything the era had seen before – he represented a mind-set from a long forgotten era, an aggressive hunger to expand the kingdom and conquer new lands. He moved a huge army north of the kingdom and attacked the Nubians relentlessly, punishing them into surrender before claiming considerable Nubian territories.

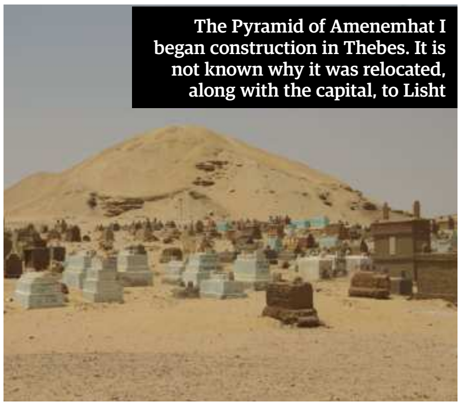
His successor, Amenemhat III, is famed for his radical approach to construction. He took advantage of the country's limestone and sandstone quarries like never before, beginning a huge programme of building that spread across the entire kingdom.

His son, Amenemhat IV, has a poorly recorded rule but his successor, Sobekneferu, became the first recorded female Egyptian ruler in the country's history (although her reign lasted only four years).

During the Middle Kingdom the elevated flood levels of the Nile boosted agriculture and buoyed the economy



Ancient Egyptian men building a wooden coffin in a Middle Kingdom carpentry shop



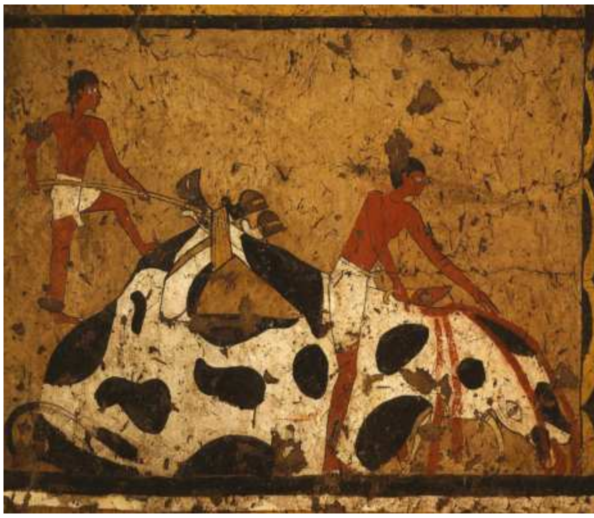
The Pyramid of Amenemhat I began construction in Thebes. It is not known why it was relocated, along with the capital, to Lisht

The feudal governments of the Middle Kingdom

In the Old Kingdom before it and the New Kingdom that followed, the pharaoh's rule was absolute. Priests, nobles and even the queen herself could act, with consent, on the king's behalf, but the for the most part, the pharaoh answered to no one but the gods. However, that definitive rule came under threat when the Old Kingdom crumbled and splintered into two separate realms. With two dynasties now vying for power, the normal authoritative structure of the kingdom was in ruins.

Prior to the rise of the pharaohs, the entire country was divided into small administrative colonies known as *nomes*. Each nome had an appointed leader (*nomarch*), and it was these independent city states that the first pharaoh had to unite in order to establish Egypt as a single nation.

Even after unification, the nomarchs – 20 of whom were based in Lower Egypt and 22 in Upper Egypt – remained. However, they existed more as regional officials who would report directly to the royal court. As the country entered the First Intermediate Period, these nomes began to assume autonomy once again. By the time of reunification, new sole pharaoh Amenemhat I found these states unwilling to bend the knee entirely. The position of nomarch was considered hereditary (rather than being subject to the king's discretion), an issue made all the worse by marriages that created powerful alliances between multiple nomes. In order to maintain peace in the kingdom, Amenemhat was forced to agree to an alliance of sorts, creating a bizarre feudal system that lasted until the reign of Senusret III.



The New Kingdom

The last great age of Ancient Egypt was its grandest yet – an era of economic enterprise, domestic beautification and military expansion

Lasting from the 16th to 11th century BCE, the New Kingdom saw Ancient Egypt transformed. Its kings and queens both looked ahead at the promising future of the realm and back in the hope of emulating the monarchs of the past. The empire was expanded by the sword of warrior kings, while the realm itself was rebuilt from the ground up by a new economic prosperity. This was Ancient Egypt at its peak, as reflected in the resultant boom in arts and culture.

Mortuary beliefs developed during this era, leading to an influx of talismans and amulets for protection in the afterlife

The New Kingdom was preceded by another fracture known as the Second Intermediate Period. Towards the start of the 16th century BCE, a small warrior tribe known as the Hyksos had begun settling in the fertile land of the Delta (a group of rivers and tributaries that led into the Mediterranean Sea). By the time the pharaoh in Thebes realised what was happening, it was too late. The Hyksos were fearsome warriors who used advanced weaponry – mainly cavalry, chariots and powerful compound bows – and who were comfortably settled. The 15th Dynasty was established and lasted for more than 150 years, but the Hyksos presence divided Egypt in two, with the invaders controlling Lower Egypt while the Thebans ruled Upper Egypt. Kings made many efforts to defeat the Hyksos, but the tribesman were seasoned warriors and weren't so easily deterred.

It wasn't until the time of Ahmose I, the first pharaoh of the 17th Dynasty, that everything changed. Having watched his family fail to banish the Hyksos, Ahmose I raised a huge

A statue of Akhenaten from his Aten Temple at Karnak army and met the Hyksos with unrelenting force. Over many years he pummelled the borders, slowly driving the Hyksos back. Eventually, the Theban pharaoh drove the occupying forces from his homeland and set about restoring Egypt to its former glory.

With Egypt unified, the 17th Dynasty's founder began an expansive series of military campaigns that added new territories to the realm while regaining lands lost in the Second Intermediate Period. These conquests brought new wealth into the economy – it re-energised the construction of temples and monuments and enabled Ahmose I to rebuild the decorated nation of old.

Ahmose I's desire to restore Egypt to its former greatness would be reflected in the actions of the kings and queens who followed. Amenhotep III rebuilt monuments, tombs, and statues on a scale never seen before, solidifying the bubbling new culture of arts and expression.

Queen Hatshepsut was the first woman to take the title of pharaoh, and she helped nurture the country's economy, including expeditions to Punt and other trading posts. Thutmose III created one of the most impressive armies ever assembled by a pharaoh and used it to expand Egypt's borders with conquest after conquest. The 18th Dynasty was a time of achievement on multiple fronts, but like any age of success, there was also a catch.

That blip came in the form of Amenhotep IV, also known as Akhenaten. A religious zealot who despised the power of the Church of Amun (the patron god of the Theban kings), Akhenaten did not believe in the polytheistic practices that had defined Egyptian theology since the country's earliest times. He outlawed the worship of any god other than his chosen deity, Aten, and forced the country into massive religious upheaval.

The Amarna Period, as it would come to be known, only lasted 16 years, but the damage was already done. The upheaval was so universally despised that Akhenaten was branded the 'Heretic Pharaoh', even by his own son and future pharaoh Tutankhamun. His legacy was summarily expunged from many future histories and a course was set to bring Egypt back to its former glory.

The dynasty that followed pushed Egypt's prosperity to new heights. The most notable pharaoh of the period, Ramesses II, took the great armies formed by Thutmose III and weaved a military campaign that moulded Egypt into its most powerful form. He sired a considerable number of children (most of whom he outlived) and built a huge tomb and necropolis in the Valley of the Kings.

Like the 19th Dynasty, the 20th was also defined by the legacy of one man: Ramesses III. However, while Ramesses II would strengthen his nation, his descendent would ultimately weaken it by draining the treasury with unsuccessful military campaigns and defensive operations. It was his mismanagement of the crown that eventually set about the slow decline of the New Kingdom and the native pharaonic line as a whole.

When the New Kingdom era drew to a close with the death of Ramesses XI, Egypt would never again prosper under native Egyptian rule

What happened next?

Following the end of the New Kingdom and its final golden age, what was next for this ancient civilisation?

While the period we know as Ancient Egypt officially ended with the death of Cleopatra VII and its addition to the Roman Empire in 30 BCE, its true demise could be attributed to the death of Ramesses XI. The span of time that followed, the Third Intermediate Period, saw the power of the pharaohs start to deteriorate as political in-fighting took hold. The period lasted about 350 years and was split into three stages: the first saw the rule of the country divided between the 21st Dynasty (which controlled Lower Egypt) and the High Priests of Amun at Thebes (which ruled most of Middle and Upper Egypt). The two states existed in relatively peaceful harmony.

The second period saw the country reunited thanks to the rise of the 22nd Dynasty and new king Shoshenq I – the Libyan monarchy came to power in about 945 BCE, expanding out from the East Delta to control the entire nation. Once the country's bitter enemy, the Libyans now ruled Egypt as native Egyptians. The country began to destabilise once again under the rule of the 22nd Dynasty in 850 BCE, and by 818 BCE, a rival 23rd Dynasty had risen, which then caused the nation to fragment into warring states.

The country would eventually fall to a Nubian invasion, lasting 25 years. This marked a trend for the coming centuries as Egypt's grand native history was buried by an Assyrian, Persian and eventual Greek invasion during the subsequent Late Period. In short, the nation had fragmented so far from the stable centralised structure of the three kingdom eras that it ultimately benefited from the stability outside rule brought with it.

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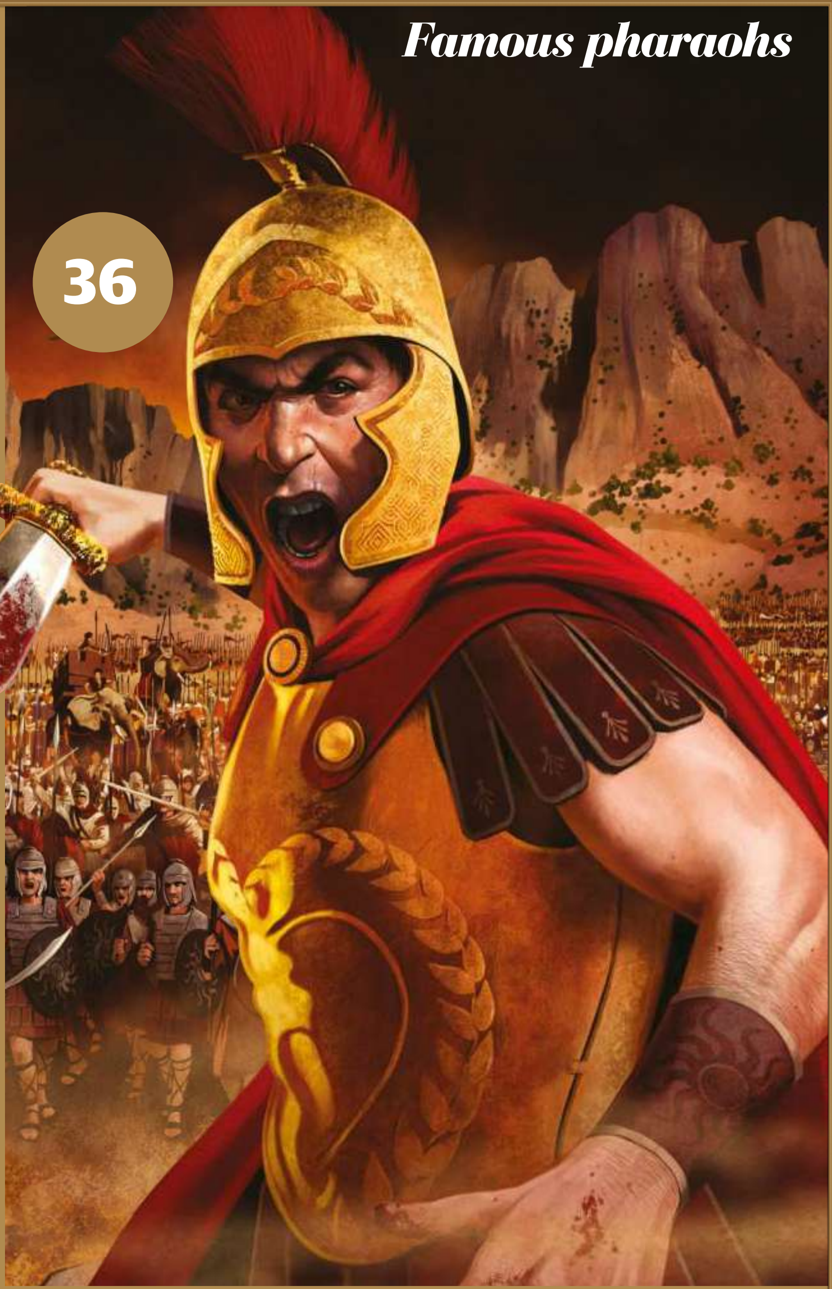
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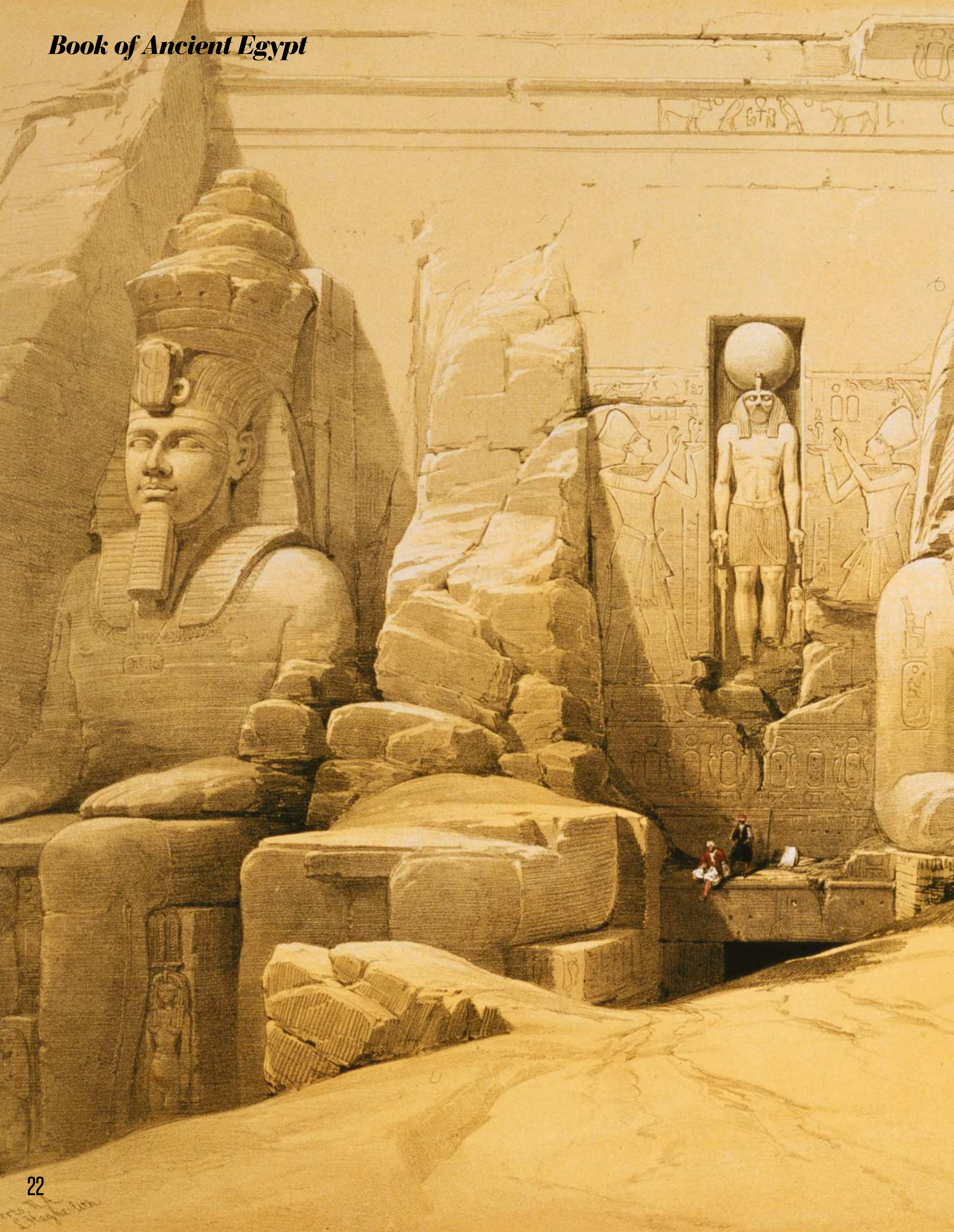
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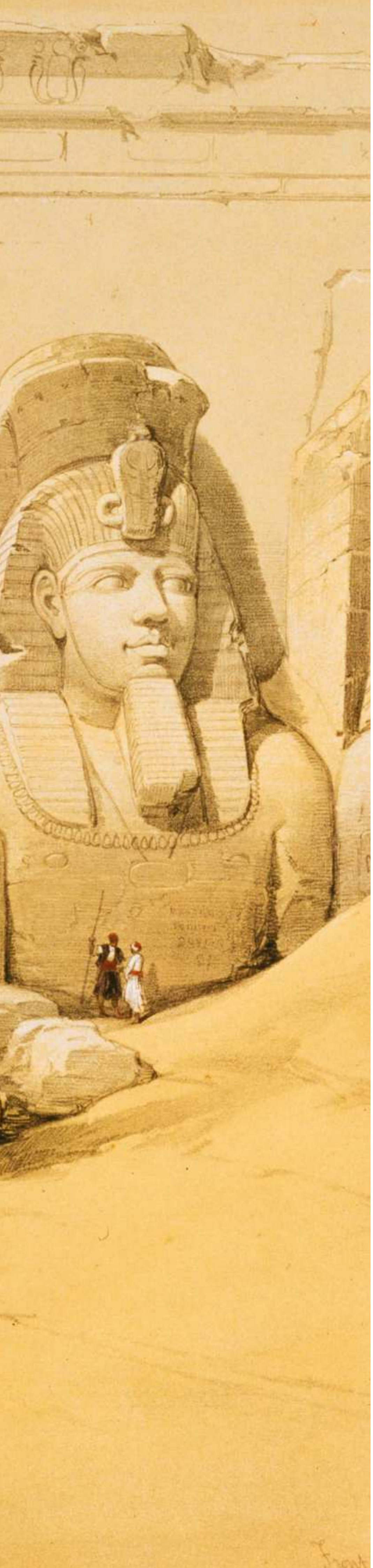

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Power of the pharaoh

Over the course of more than 30 different dynasties, the rulers of ancient Egypt became both conquerors of the world and conduits of the gods

Ancient Egypt was a kingdom like no other. For 3,000 years a nation united as one, it expanded its horizons across the face of the Earth, erected true Wonders of the World and became one of the most powerful empires history has ever seen. Yet for all those achievements, none would have been possible without the rulers at its head - the kings, the queens and the pharaohs. Through the actions and decisions of over 170 men and women, Egypt became an epicentre for culture and philosophical thinking. It became a place of polytheism, where a pantheon of gods lived in (relative) harmony and informed every facet of daily life.

But who were these figureheads and what was their true role in everyday Egyptian society? How did a king or queen rule a kingdom that stretched from the Nile to the Euphrates? These questions have fascinated historians for centuries, and only now are we beginning to understand the responsibilities of a monarch in an age of deeply religious devotion and magical superstition.

The role of a pharaoh in Ancient Egypt is a complicated one, full of responsibilities and expectations, but it can be broadly defined by two distinct titles: 'The Lord of Two Lands' and 'High Priest of Every Temple'. Pharaohs were considered both divine figureheads and mortal rulers and as such were involved in everything from godly rituals to dispensing justice. As king, the pharaoh was also the conduit of *ma'at* (truth, justice, prosperity and cosmic harmony - the key tenets of Ancient Egyptian society), so his sovereignty embodied both temple and state.

While pharaohs were often worshipped with the same religious fervour reserved for the gods themselves (such devotion was common in both life and in death - for instance, Ptolemy II, the second ruler of the Greek Ptolemaic Dynasty, had himself and his queen deified within two decades of their rule and welcomed the cults that formed around them), a pharaoh was still seen more as a divine conduit. They were viewed not as the equal of creationary gods such as Amun-Ra, but as a manifestation of their divinity.

In death, a pharaoh was just as influential as they were in life - the Egyptians viewed death not as the end of all things, but the immortalisation of the great and the just. Cults would worship a pharaoh long after their death, while their name and deeds would live on in the constellations named after them and the monumental tombs erected to protect their wealth and prestige. However, the importance of an individual pharaoh was often relative - cults were sometimes disbanded so as to avoid undermining the sanctity of the current regime, while countless tombs and cenotaphs were stripped of their stone and precious limestone in order to facilitate the monumental building of later rulers.

As a mortal man, the pharaoh was the most important individual on Earth; surrounded by servants and dignitaries, they would operate from opulent palaces and coordinate religious doctrine with the help of the most prevalent church at the time. Egyptian rulers often favoured a particular god and through these deities certain churches rose to significant power, much in the same way Catholic and Protestant churches benefited or

> There are 225 known names in the annals of ancient Egypt which can be traced back to pharaohs who ruled over the kingdom

A deeply religious and spiritual individual, only the king could envision something as grand as the pyramids

Djoser

Founder of the Third Dynasty, Djoser was the first Egyptian monarch to commission a pyramid. He was also a long-time sponsor of Imhotep, arguably one of the most famous physicians and architects to emerge from the ancient world. Djoser inherited the throne from his father Khasekhemwy and ruled Egypt for around three decades. Like his father, Djoser was fond of architecture and construction, and soon set about adding his own monuments to the Egyptian landscape.

His most famous construction was the Pyramid of Djoser, a large necropolis consisting of statues, pillars and other decorations, all centred around a six-tiered step pyramid. Prior to this, pharaohs were usually buried in rectangular, flat-roofed tombs known as *mastabas*. Under the direction of polymath genius Imhotep, who rose to become Djoser's vizier and closest advisor, a total of six mastabas (in each one decreasing in size) were shaped into squares and stacked atop one another. The final monument was almost 21 metres (70 feet) tall, and was Egypt's first true pyramid.

Despite his fascination with construction, Djoser was still no layabout monarch when it came to foreign excursions. He conducted a number of campaigns, mostly in the Sinai Peninsula (located between the Mediterranean and Red Seas), where he mostly subdued outspoken subjects.

"The Egyptians believed the dream world was where gods, men and demons walked the same path"

suffered from a given religious skew in Medieval Europe. For instance, the god Amun became the patron god of the Theban kings for centuries, and his church became so powerful it caused one pharaoh (Akhenaten) to effectively outlaw it and establish another in its place.

A pharaoh would also coordinate the defence of the kingdom's borders while leading every military campaign personally. What could be more frightening to a rebellious state or neighbouring nation than a resplendent tool of the gods arriving to cast them aside? They would oversee irrigation and the inundation of the Nile River, ensuring the fertile land along this body of water was fresh for agriculture.

The king would even commission the building of new temples and the renovation of existing monuments, with some rulers even destroying the work of their predecessors. Ancient Egypt was a kingdom that embodied the personality of its ruler at that time. For instance, Amenhotep III wanted to usher in a new golden age during the 18th Dynasty and spent a great deal of his reign beautifying the land. Statues and temples were built, while an influx of wealth from military successes across the border had enabled him to adorn his palace and the capital of Thebes with gold and expensive cloth.

The daily life of a pharaoh would differ slightly between the dynasties, but overall his (or her) duties would remain the same. Pharaohs would often waken in a specially designed sleeping chamber – the Ancient Egyptians were a people deeply in touch with their faith, a spectrum of dogma, science, magic and superstition. Just because a pharaoh was the divine manifestation of godly will on Earth didn't mean he was free from worry or concern. The Egyptians believed the dream world was a place where gods, men and demons walked the same path, so a pharaoh's sacrosanct sleeping quarters would be adorned with spells and incantations, and perhaps statues

Hatshepsut was the longest reigning female pharaoh of Egyptian descent, with a rule spanning around 22 years

Influential figure

Narmer

31st century BCE

Less well known than some of the more outlandish and well-documented kings, Narmer still remains one of the most influential men to ever rule over Egypt. He was the first king to unite all of Egypt, effectively ending the Predynastic Era, and founded the first dynasty. Evidence suggests Egypt also had an economic presence in Canaan (home of the future invaders, the Hyksos). Some historians argue the first king was a man called Menes, while others reckon the two are one and the same.

Influential figure

Khufu

2589-2566 BCE

A Fourth-Dynasty pharaoh who ruled during the first half of the Old Kingdom era, Khufu (originally Khnum-Khufu) is widely accepted as the king who commissioned the Great Pyramid of Giza, one of the Seven Wonders of the World. He was the son of Sneferu and Queen Hetepheres I and is believed to have had three wives. Very little is known about his reign, and the only surviving statue of him (found in a temple ruin in Abydos in 1903) is one of the smallest ever found.

31st century BCE
Hor-Aha
Considered the second pharaoh of the very first Egyptian dynasty, Hor-Aha inherited the throne from the man who unified Predynastic Egypt, Narmer. He conducted campaigns against the Nubians.

Merneith
c. 2970 BCE

c. 2690 BCE
Khasekhemwy
The father of Djoser (who would go on to build the first pyramid), Khasekhemwy was the archetypal leader for his son to follow, conducting military campaigns and building monuments.

c. 2670 BCE
Djoser
Djoser, founder of the third Egyptian dynasty, is most famous for his step pyramid (the first to be built on Egyptian soil) and his close relationship with multi-talented architect-priest, Imhotep.

Huni
c. 2600 BCE

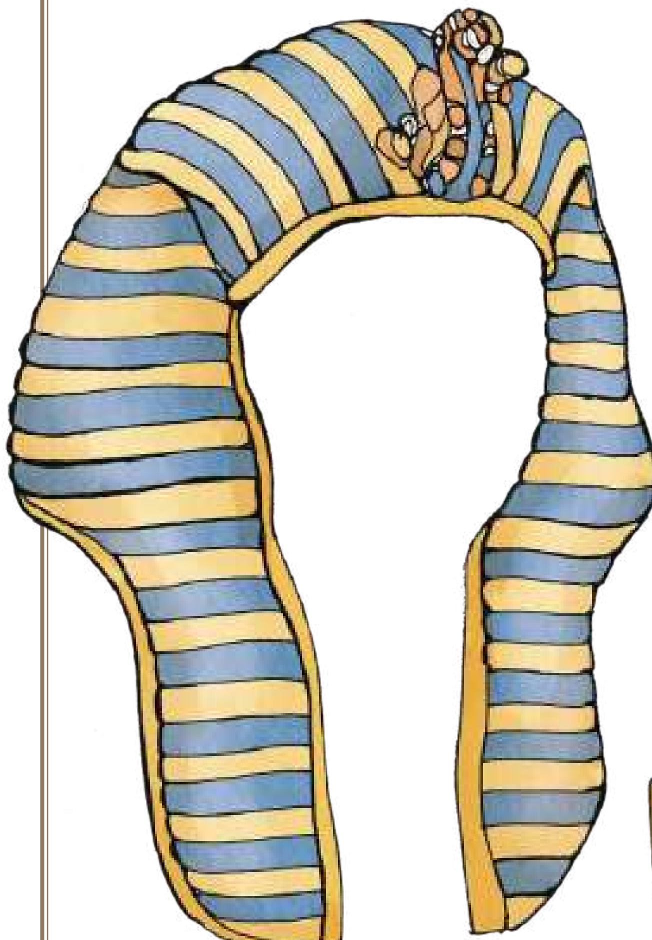
c. 2575 BCE
Djedefre
The son and immediate successor of Khufu, Djedefre is known for building one of the most impressive and enduring Egyptian monuments, Great Pyramid of Giza.

c. 2570 BCE
Khafre
Djedefre's successor, Khafre (or Khafra) built the second largest pyramid at Giza. He's also linked to the creation of the Great Sphinx, but his involvement remains hotly contested.

c. 2530 BCE
Menkaure
The son of Khafra and grandson of Khufu, Menkaure built a famous monument at Giza, the Pyramid of Menkaure and a number of temples.

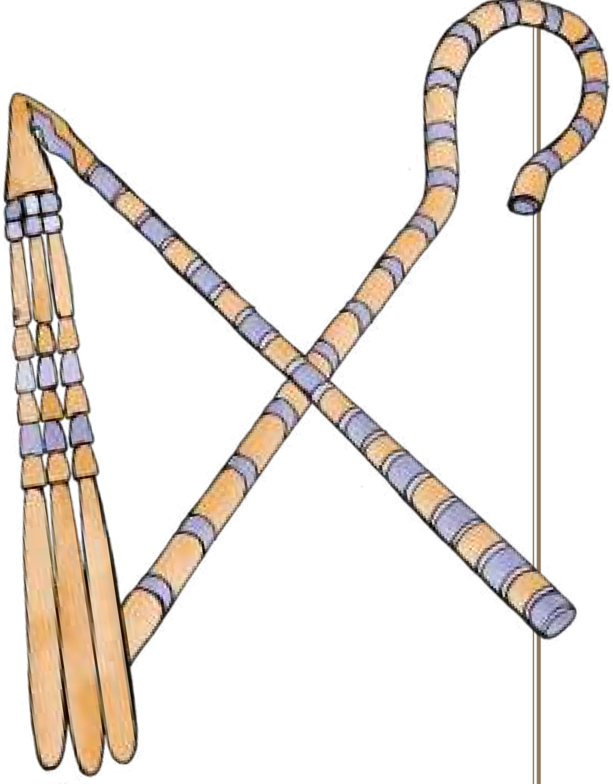
Symbols of a pharaoh

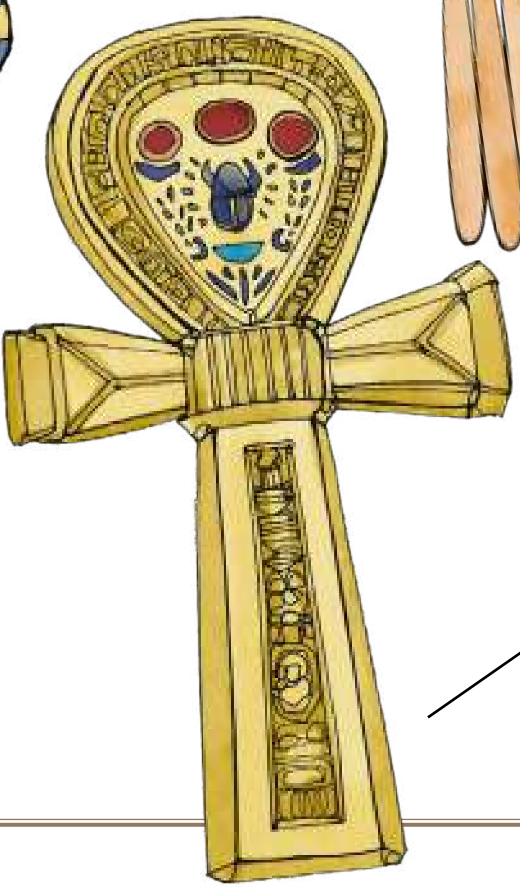
Exuding wealth and power was a key part of pharaonic propaganda. Here are just a few of the items that did the job for them



Crook and flail

Originally linked solely to the god Osiris, the crook and flail later became a combined symbol of pharaonic authority. The shepherd's crook stood for the power and responsibility of kingship, while the flail was shorthand for the fertility of the land.





Nemes headdress

Less of a crown and more of symbol of a pharaoh's power, the nemes was a headdress that covered the whole crown, the back of the head and the nape of the neck. Usually striped with gold (to represent the ruler's wealth), the nemes had two large flaps that hung behind the ears and draped over the front of the shoulders.

Ankh

The ankh, which is usually grasped in the left hand of a pharaoh, is one of the most important symbols associated with the pharaohs. It represents the concept of eternal life, a state of being that was close to the hearts of the pharaohs, as represented by their tombs and monuments. The ankh also represents religious pluralism (all gods as one).

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2492-2487 BCE

Userkaf
He built a pyramid at the mortuary complex at Sakkara, as well as beginning the tradition of constructing sun temples at Abusir.

2112-2063 BCE

Intef II
The third ruler of the 11th Dynasty, Intef II ruled Upper Egypt for the best part of 50 years. He united most of the southern families together to strengthen the south of the country as one.

2063-2055 BCE

Intef III
Ruled during the First Intermediate Period as part of the 11th Dynasty. Despite inheriting a mostly peaceful Upper Egypt, Intef III was still actively busy with military campaigns in a hope to reunite the nation.

2055-2010 BCE

Mentuhotep II
As part of the 11th Dynasty, Mentuhotep II ruled for just over half a century. He is credited as the man who reunited Egypt, thus ending the tumultuous First Intermediate Period.

1878-1839 BCE

Senusret III
The fifth known monarch of the 12th Dynasty, Senusret ruled during the most prosperous period of the Middle Kingdom. He conducted vast military campaigns that brought stability to the region and built the Canal of the Pharaohs.

1860-1814 BCE

Amenemhat III
A pharaoh of the 12th Egyptian dynasty, Amenemhat III's reign is considered the golden age of the Middle Kingdom era. He erected pyramids and continued work on the Great Canal.

Thutmose III

Emerging from the shadow of arguably the most ambitious and powerful woman to ever assume the Egyptian throne, Thutmose III went from a co-regent to the head of one of the most powerful empires in the ancient world. As was tradition in the 18th Dynasty, Thutmose spent the first 22 years of his reign co-ruling with his aunt and stepmother Hatshepsut. When his father Thutmose II died, the prince was too young to inherit the throne, so his aunt assumed his royal responsibilities. She would go on to reject the title of regent and assume the title of queen – however, Hapshetsut never denied her nephew's kinship and legitimacy, so the two ruled peacefully together as he grew into a man.

When he inherited the throne in 1479 BCE, Thutmose III began a rule defined by the activity of his military. He conducted a total of 17 campaigns, and his expansionist nature led to him being described as 'the Napoleon of Egypt' by some historians. He possessed a tactical genius that enabled him to expand Egypt's borders with fervour and re-establish Egypt as one of the most powerful empires that ever existed. As well as his conquest of Syria, Thutmose III built a huge number of monuments and put a great deal focus on adding to the temple at Karnak.

©Markh

> "The visiting of temples was a vital part of a pharaoh's roving duties – known more commonly as 'doing the praises'"

or busts of Bes (the god of repelling evil) or Nechbet (a goddess of protection) adorning the walls and columns.

The pharaoh would then move into the nearby Chamber of Cleansing, where he would stand behind a low stone wall to protect his royal modesty as a group of servants washed his body with warm and cold water. After being dried with linen towels, the pharaoh would move into the Robing Room. Here, the Chief of Secrets of the House of the Morning (a man tasked with overseeing the monarch's garments for every occasion) would coordinate the careful clothing of the king by another crew of servants.

Since we only have stone pictorials or statues to present the image of the king, it's easy to assume the Egyptian monarch wore a ceremonial headdress and carried an ankh and cane or flail wherever he went, but this is far from the reality. Of course, for official ceremonies, such as the meeting of dignitaries of public addresses, the king would wear all the paraphernalia, but this was far from the case when it came to the laborious, day-to-day running of a kingdom.

The handlers of royal linen, the handlers of the royal crowns and headdresses, and even the director of royal loincloths would all gather around the king and dress him for the day to come. Instead of the opulent gowns and sashes of formal wear, the king would have been dressed in a similar fashion to his courtiers – a simple linen tunic, sandals and a sash around the waist. He wouldn't have worn the heavy ceremonial crowns commonly seen on statues; instead he would have worn a simple diadem most likely made of silver and gold with a uraeus (a coiling cobra) at the front.

From there, the pharaoh would proceed to the temple adjoining the palace. He would pray to the gods and pay tribute alone before moving to the throne room to conduct the first meetings of the day. The king would meet with his advisors and dignitaries from across the land every day, receiving reports from across the kingdom and ordering his officials to oversee certain aspects that require further attention.

Of course, while any citizen could petition for an audience with the king, not everyone made it to the throne room. Even those who did may well have only met with the vizier instead. The pharaoh would pass laws into effect, but it seems most likely that many of these were ratified by his closest advisors so as not to drown the king in administrative duties.

> The pharaoh would rise at dawn to meet the sun, then he would don his cosmetics, jewellery and perfume after bathing

Influential figure

Ahmose I

1539-1514 BCE

Founder of the 18th Dynasty and one of the most influential pharaohs, Ahmose I successfully united his kingdom after more than a hundred years of division. The Hyksos, a Semitic warrior tribe, had settled in the Delta and used advanced weaponry such as compound bows and chariots. By sheer force of will, Ahmose I defeated the Hyksos and drove them out of Egypt. His military successes would infuse the nation with wealth and a new monument-building program rejuvenated the face of the kingdom.

Influential figure

Hatshepsut

1473-1458 BCE

Hatshepsut ('Foremost of Noble Ladies') was the fifth pharaoh of the 18th Dynasty. She remains the longest-serving female pharaoh and arguably the most successful. She was the Chief Wife of Thutmose II and, upon his death, she became regent for his son Thutmose III. In an unprecedented move, she installed herself as queen in 1473 BCE, but did so without denying her own stepson's legitimacy. As such, when Thutmose III came of age, he and his aunt/stepmother co-ruled until her death in 1458 BCE.

1806-1802 BCE

Sobekneferu

A female ruler who ruled Egypt for around four years during the 12th Dynasty, Sobekneferu inherited the throne when her predecessor Amenemhat IV died without a son.

1764-1759 BCE

Khendjer

The 21st pharaoh of the 13th Dynasty, Khendjer built a small pyramid for himself in the mortuary complex at Sakkara. He's the earliest known Semitic king of Egypt.

1701-1677 BCE

Merneferre

An ancient Egyptian pharaoh of the mid-13th Dynasty, he reigned over Upper and Middle Egypt concurrently with the pharaohs of the 14th Dynasty.

1610-1580 BCE

Khyan

1560-1557 BCE

Seqenenre Tao

c. 1540 BCE

Khamudi

Khamudi was the last ruler of the Hyksos, otherwise known as the 15th Dynasty. He and his people were driven from Egypt by the Theban pharaoh Ahmose I.

1506-1493 BCE

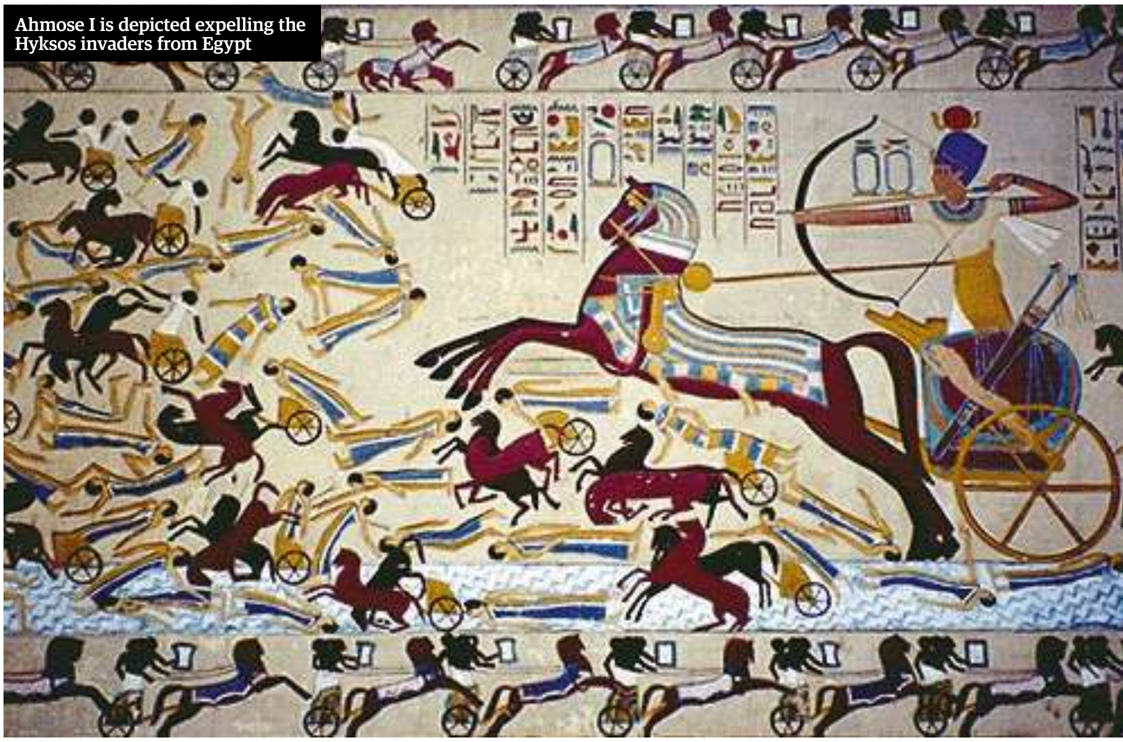
Thutmose I

The third pharaoh of the 18th Dynasty, Thutmose I (or Tuthmosis) ruled during the prosperous era known as the New Kingdom. He conducted many military campaigns and expanded the boundaries of the kingdom further than any other previous monarch.

The pharaoh was the arbiter of his people and as such was always on the move. The Egyptians endured in the harsh environment of Northern Africa not just because of their ability to adapt and survive, but because of the ferocious activity of their rulers. Simply sitting in state in the nation's capital would have been disastrous, so a successful pharaoh would visit every corner of his kingdom, inspecting the building of temples and overseeing the construction of new fortifications to protect the borders of his kingdom. The visiting of temples was a vital part of a pharaoh's roving duties - known more commonly as 'doing the praises', it was an awe-inspiring mark of respect to see the pharaoh and his court visit a temple and offer tribute to a local god.

Festivals were another important part of Egyptian culture, especially those that celebrated the sanctity of the pharaoh's rule. The Opet festival, usually held at the Luxor Temple, would represent the renewal of the royal *ka*, or soul (the very life force of Egyptian society) and by association the power of the king himself. The Sed festival, usually held in a king's 30th year to celebrate their continued rule, was another huge occasion that would see the entire kingdom decked out in its finest decorations. In short, these festivals were a testament to the love and reverence the Egyptian people had for their ruler.

Yet, for all their influence and divine status, one man could not be in all places at all times. As such, a pharaoh would often deputise his priests, tasking them with travelling to different corners of the kingdom to oversee new and existing temples. He would often pass a great deal of responsibility onto members of the royal family, most notably the Great Royal Wife. A pharaoh would likely take multiple wives, but only one would be his true


Ahmose I is depicted expelling the Hyksos invaders from Egypt

Akhenaten (Amenhotep IV)

Few pharaohs made an impact on ancient Egypt quite as severely as the 18th Dynasty king Akhenaten. He didn't change the nation by his military campaigns or his desire to erect great and imposing monuments – his mark on history used the most powerful tool available: religion. For time immemorial, Egypt had celebrated and worshipped a host of different gods, each one representing the different facets of life, industry and human nature itself. The rise of Theban pharaohs and their prosperity in the 18th Dynasty had elevated the god Amun to patron status.

The Church of Amun had grown in power, too, and its gradual influence over the court of his father, Amenhotep III, had soured the prince as a child. When he ascended to the throne in 1351 BCE, Amenhotep IV dismantled the church that had irked him so much as a young man. He banned polytheistic practices (worship of multiple gods) across the nation and forced his people, priests and family to worship one single god: Aten. He even moved the capital from Memphis to Akhetaton, but ultimately his attempts to undo the theological fabric of his countrymen failed and his Amarna Period was buried by future monarchs trying to erase his legacy.

Influential figure

Amenhotep III

1391-1353 BCE

Otherwise known as Amenhotep III the Magnificent, Amenhotep III was ninth pharaoh of the 18th Dynasty. Under his stewardship, Egypt saw a renaissance in its arts and culture; he redecorated the kingdom with monuments; vessels, statues and temples were erected. Egypt rose to a new era of cultural awakening. Amenhotep III inherited a relatively peaceful kingdom, so he was able to focus most of his attention on beautifying the kingdom. Over 250 statues bearing his name have been discovered, proving him to be one of the most prolific builders of the era,

Influential figure

Ramesses II

1279-1213 BCE

One of the most famous and recognisable pharaohs (perhaps second only to Tutankhamun), Ramesses II is celebrated as the most successful and powerful of the Egyptian kings. He led a large number of military campaigns to the north and south of the country, vastly increasing the size of the kingdom as he conquered new lands. He reigned for 66 years and celebrated an unprecedented 14 Sed festivals. He was also a prolific builder, his monuments including the city of Pi-Ramesses.

1479-1425 BCE

Thutmose III
The sixth pharaoh of the 18th Dynasty, Thutmose began his reign in a co-regency with his aunt and stepmother Hatshepsut. As a sole ruler, he helped to expand the nation's territory like never before.

1401-1391 BCE

Thutmose IV
The eighth pharaoh of the 18th Dynasty, Thutmose IV erected the tallest ever obelisk at the Temple at Karnak. He was buried in the Valley of the Kings.

1353-1336 BCE

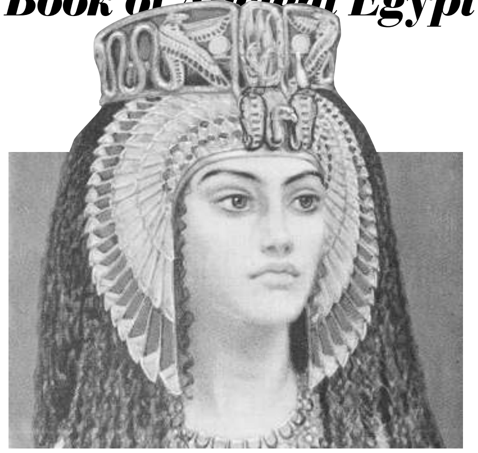
Akhenaten
One of the most controversial kings of Egypt, Akhenaten (formerly Amenhotep IV) rejected the polytheism that had defined the nation since its inception and enforced the worship of a singular god, Aten.

1332-1323 BCE

Tutankhamun
Arguably the most famous pharaoh of all, King Tut was the son of the heretic king Akhenaten. He helped reverse much of his father's actions and returned Egypt to its traditional polytheistic religious structure.

1290 -1279 BCE

Seti I
He was a pharaoh of the 19th Dynasty, which held power over Egypt during the New Kingdom era. He was the father of Ramesses II.



The lives of Egyptian queens

With the exception of queens such as Cleopatra and Hatshepsut, who took the most powerful seat for themselves through guile and sheer will, the queens of Ancient Egypt experienced very different worlds.

The royal women of the Old and Middle Kingdoms were required to be passive, and expected to provide male heirs without refrain or complications. However, with these subservient requirements came a deceptive amount of hidden power. Should a queen hold the favour of her king, he might leave the running of the kingdom in her stead while he left the kingdom to conduct military campaigns or focus on monument construction. She would also oversee the running of the palace and ultimately act as regent should the king die before a male heir was of age to inherit the throne independently.

By contrast, the life of a queen in the New Kingdom era was far different. Royal women were afforded far more authority and prestige. The more astute and popular queens were able to acquire their own secular and religious titles, such as God's Wife of Amun, and receive with it the land, servants and followers such a potent station could offer.

Relief depicting the coronation of a pharaoh

Influential figure

Merneptah

1213-1203 BCE

The fourth ruler of the 19th Dynasty, Merneptah was the 13th son of Ramesses II and only came to power because all of his older brothers predeceased him – he was over 60. He's famed for his military campaigns, including defending Egypt from a combined force of Sea Peoples and Libyans. He also moved the capital from Pi-Ramesses back to Memphis, where he built a large palace next to the temple of Ptah.

Influential figure

Ramesses III

1186-1155 BCE

The second pharaoh of the 20th Dynasty, he is considered the last great king to hold any substantial authority in the prosperous New Kingdom era. Ramesses III is celebrated for maintaining stability in the kingdom while it began to suffer both economic strife and a constant threat of foreign invasions. The Sea Peoples (a large group of seafaring raiders) were constantly attempting to invade and eventually settled in Canaan. Ramesses III is believed to have claimed he defeated the Sea Peoples and granted them the land as an act of kindness, but it seems likely he was instead unable to halt their occupation.

1047-1001 BCE

Psusennes I
The third king of the 21st Egyptian dynasty, Psusennes I was most famous for the discovery of his intact tomb in 1940. He reigned for just over 40 years.

943-922 BCE

Shoshenq I
Most famous for suspending traditional hereditary succession in favour of a system where the most powerful men selected a new ruler. This practice lasted for around a century.

690-664 BCE

Taharqa
A pharaoh of the 25th Dynasty, Taharqa spent most of his campaign in conflict with the Assyrians. He's also known for his impressive additions to the Temple at Karnak.

672-664 BCE

Necho I

610-595 BCE

Necho II
Conducted a number of military campaigns across Asia, but is most famous for a surprise defeat to the Babylonians who subsequently drove all Egyptian influence from Syria.

570-526 BCE

Amasis II

525-522 BCE

Cambyses II
A warrior king of Persia, Cambyses invaded Egypt in 525 BCE and founded the First Persian Occupation. Defeated Psamtik III to take the throne.

queen, who would hold the most power outside of her husband. While the lesser wives (who would range from foreign princesses to a pharaoh's own sisters and daughters) would often remain at one of the king's many palaces around the country, the Great Royal Wife would usually travel with the king as he conducted his duties.

Queens formed an important part of a pharaoh's persona. As the mother of princes, a queen could inspire cults and followings in her own right, and many of the most influential kings were immortalised in pictorials and statues with their favourite consort at their side. When a pharaoh was busy elsewhere – usually with overseeing the construction of a tomb or standing at the head of a foreign campaign – the running of the country was often left to his queen. Some queens, such as Queen Tiye (the wife of Amenhotep III), were elevated to such a high position of power that they hosted foreign dignitaries and entertained kings with all the authority of their husband. Of course, not all queens could boast such influence, but those most favoured were still a formidable presence and influence in the royal court.

The fragmented Palermo Stele features the names of the kings of Egypt between the First Dynasty and the Fifth Dynasty

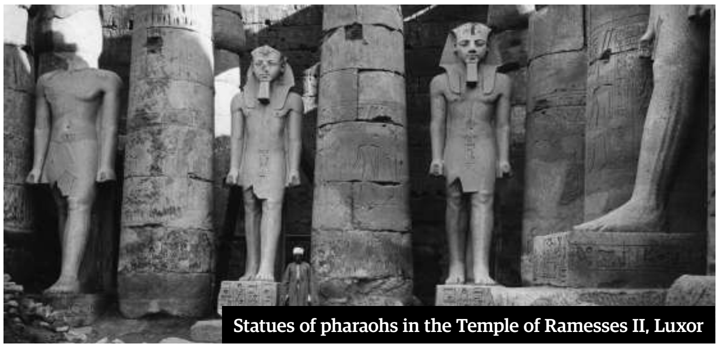
The hierarchy of the royal court, and Egyptian society as a whole, was often based upon an individual's importance and contributions. Directly under the pharaoh stood the queen, but in cases where the Great Royal Wife was not as elevated, a grand vizier would advise the king on matters of state. Beneath the vizier and advisors were the priests and nobility of the royal court. These were the elite and were usually heads of the most powerful families of the period. Beneath the nobility and the holy men were physicians, sages and engineers, followed by scribes, merchants and artists. Finally, at the bottom of the hierarchical pyramid were the vast majority of the population – the everyday working people themselves.

From their inception with King Narmer and the First Dynasty, to their conclusion with the suicide of Cleopatra VII and Egypt's absorption into the Roman Empire, the pharaohs were the epitome of royal power in the ancient world. They commanded armies that conquered even the most bloodthirsty of enemies, orchestrated the construction of vast and impressive monuments that have survived to this day, and maintained over 30 dynasties that shaped the world around its majesty.

The pharaohs may now have been consigned to Ancient Egyptian history, but their mark upon that history will last forever.

Tutankhamun

Perhaps the most recognisable pharaoh that ever lived, King Tut (as he's colloquially known) reigned for 11 years during the New Kingdom (a period of time considered the second golden age in ancient Egyptian history). Inheriting the throne at the age of nine or ten, Tutankhamun faced a similar situation to that of Elizabeth I when she assumed the English throne from her sister Mary I over a thousand years later. His father, Akhenaten (formerly Amenhotep IV), had sent the nation into upheaval, rejecting the multi-god practices that had defined Egypt since its inception in favour of a single deity. When Tutankhamun became pharaoh in 1333 BCE he started dismantling the efforts of his father – he abolished the single worship of the god Aten and re-elevated the god Amen to prominence. The stranglehold on the priesthood of Amen was lifted and the capital was moved back to Thebes. Some attribute the almost overzealous manner in which King Tut reversed his father's reformation with one of his royal advisors/viziers, Horemheb, but whether the driving force was Tutankhamun's alone or in conjunction with his court, he still made every effort to effectively expunge his father's reign from history.



Statues of pharaohs in the Temple of Ramesses II, Luxor

© Alamy

Influential figure

Alexander the Great

332-323 BCE

One of the most famous and dominant rulers of the ancient world, Alexander the Great of Macedonia eventually turned his attention to the land of the pharaohs and conquered it in 332 BCE. While in a constant state of military activity, Alexander still installed himself as pharaoh for almost a decade. Egypt was floundering under Persian rule at the time of his conquest and his arrival was seen as something of a liberation. He oversaw the integration of Greek culture into Egypt and even created Alexandria, which became the capital for the Ptolemaic kingdom that would follow.

423-404 BCE
Darius II
Darius II is believed to be the last known Persian king of the 27th Dynasty. He was defeated by Amyrtaeus, effectively ending the First Persian Occupation.

404-399 BCE
Amyrtaeus

360-342 BCE
Nectanebo II

358-338 BCE
Artaxerxes III

323-283 BCE
Ptolemy I Soter
The first Ptolemaic king was a Macedonian general. Upon Alexander's death, he became satrap of Egypt and declared himself pharaoh in 305 BCE.

283-246 BCE
Ptolemy II Philadelphus
During his reign, the literary and artistic splendour of the Alexandrian court thrived. He also oversaw the Great Library of Alexandria and erected the Great Mendes Stela.

Ptolemy V
204-181 BCE

Ptolemy XI
80 BCE

51-30 BCE
Cleopatra VII
Known more commonly as simply Cleopatra, she was the last queen of Egypt before it became an annex of Rome. She married Mark Antony and committed suicide after false news of his death.

Ptolemy XV
44-30 BCE

Cleopatra's ruthless rise to power

How the middle daughter of a despised pharaoh fought, schemed and seduced her way to becoming the most famous Egyptian ruler of all

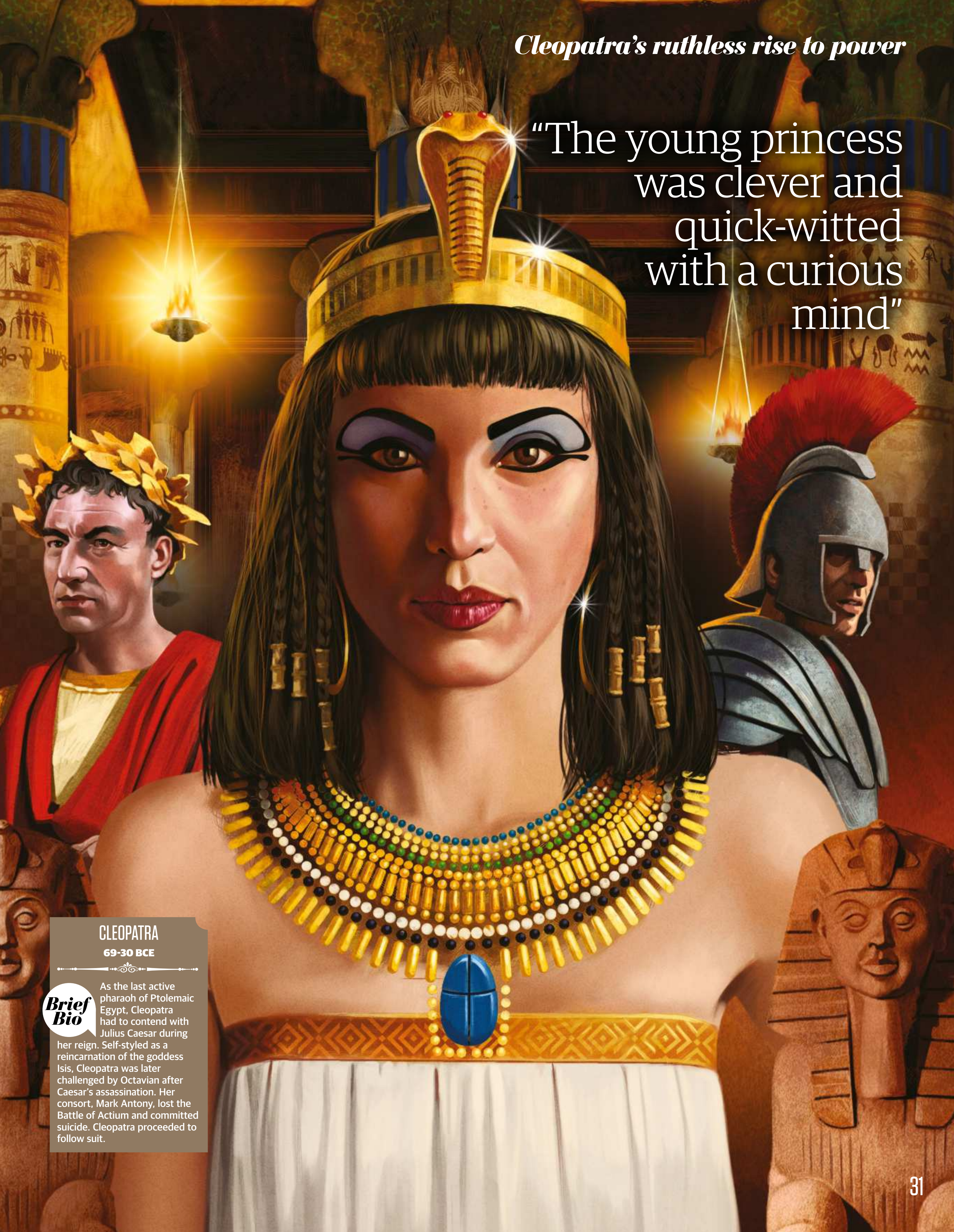
Egypt was in turmoil. In the year 81 BCE Ptolemy IX, the pharaoh who had dared to melt down the gold coffin of Alexander the Great, was dead. A series of bloody and violent family feuds had robbed his dynasty of any legitimate male heirs, so his popular and beloved daughter, Berenice III became queen. Following the family tradition, she married her half-brother, Ptolemy XI, but just 19 days after the ceremony, the groom had his new bride murdered and claimed the throne as his own. The citizens of Alexandria were furious, and an angry mob quickly seized the new pharaoh and lynched him. This left Egypt leaderless and seemingly out of control.

Cleopatra was highly educated and is rumoured to have been able to speak as many as a dozen different languages

As the commander of the army and the personification of god on Earth, a pharaoh's presence was essential to prevent mass unrest in Egypt and anyone, absolutely anyone, was better than no pharaoh at all. So the throne was offered to the illegitimate sons of Ptolemy IX, and Ptolemy XII stepped forward to claim it. A notorious womanizer with a fondness for drink and excess, he was hardly the shining beacon the struggling country needed to guide it through the darkness of the pit it had fallen into. A nickname for the illegitimate pharaoh quickly became popular – Nothos, or 'the bastard.' Ptolemy XII had at least five legitimate children, and Cleopatra VII was the second oldest after her sister, Berenice IV.

The young princess was clever and quick-witted, with an eager and curious mind driven by a near-insatiable thirst for knowledge. She easily excelled at her studies and even her esteemed scholars were amazed by her aptitude for languages, readily conversing with any foreign visitors whether they were Ethiopians, Hebrews, Troglodytes, Arabs, Syrians, Medes or Parthians. While she surrounded herself with the wonders of the academic world in the riches and luxury of the royal residence, outside her palace the real one was being stretched at the seams, in danger of being ripped apart.

Pharaoh Ptolemy XII was in a troublesome position. His father had promised Egypt to Rome, a promise the Roman Senate had chosen not to act on – not yet, at least. Still, Ptolemy XII was smart enough to understand that to keep the Romans happy was to ensure Egypt's survival. He sent masses of money and bribes to Julius Caesar (at that time one of Rome's most important figures), which secured the Romans' support, but damned him in the eyes of his tax-burdened citizens. In 58 BCE he was forced into exile, taking his talented younger daughter with him. When he finally returned three years later, with the backing of a



"The young princess was clever and quick-witted with a curious mind"

CLEOPATRA

69-30 BCE

Brief Bio

As the last active pharaoh of Ptolemaic Egypt, Cleopatra had to contend with Julius Caesar during her reign. Self-styled as a reincarnation of the goddess Isis, Cleopatra was later challenged by Octavian after Caesar's assassination. Her consort, Mark Antony, lost the Battle of Actium and committed suicide. Cleopatra proceeded to follow suit.

Roman army courtesy of the statesman Aulus Gabinius, he discovered his oldest daughter Berenice sitting on the throne. Displaying the brutal and uncompromising ferocity that ran through his entire family, he had his daughter summarily executed. He then proceeded to reclaim the throne, from which he ruled until his death in 51 BCE. The crown and all the debts he had amassed became the property of his oldest surviving daughter, Cleopatra.

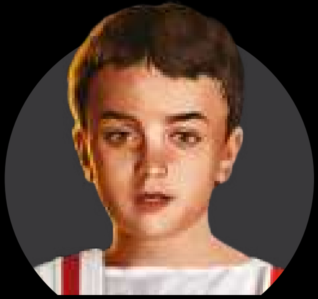
The 18-year-old was not - as some expected - a naïve, wide-eyed child torn from her books to rule a kingdom on the brink of war. She had served as consort to her father for the final few years of his reign and all her education since birth had been designed to mould her into a capable queen. Queen, that was; not king, not pharaoh. Cleopatra was cursed by the requirement of all Egyptian queens to serve alongside a dominant male co-ruler and so found herself burdened with the task of being a subordinate co-regent to her ten-year-old brother, Ptolemy XIII.

Faced with a regency council full of ambitious men who ruled in her brother's stead and led by her own ruthless, impatient and intelligent nature, Cleopatra pushed her brother-husband into the background and established herself as sole monarch of the country. This was dangerous; the Alexandrian courtiers swarmed over the young, impressionable king, filling his head with whispers of sole rule and the dangers of his older sister. If Cleopatra had been more patient and attentive, she could perhaps have trained a capable and obedient co-ruler in him, one who would have aided her rule, instead of bringing it crashing down. But that was simply not the Ptolemy way, and she was a Ptolemy in every sense of the word - daring, ambitious and deadly. She dropped her brother's image from coins and erased his name from official documents. With her skill, drive and cunning she was perfect for rule; in her mind she deserved Egypt and wasn't prepared to share it.

> She had four children by two fathers - Caesar and Mark Antony - but only one, Cleopatra Selene, made it to adulthood

The early years of her reign would be testing, as not only was the country still struggling under the father's debts, but years of infrequent floods of the Nile had led to widespread famine. Over her shoulder Cleopatra could feel the ever-looming and rapidly expanding threat of Rome, and with a weak Egyptian army, her fertile land was ripe for the picking. As hungry peasants flooded into the cities, Cleopatra's popularity plummeted, and her repeated decisions that seemed designed to please Rome at Egypt's expense reminded the bitter population of her despised father.

A husband & two lovers



Ptolemy XIII Theos Philopator

Macedonian, 62-47 BCE

How did they get together?
The marriage between Ptolemy and his sister was arranged, as was the tradition with Egyptian royalty.

Was it true love?
Considering their joint rule erupted into a brutal civil war, we can assume there was little love lost between the siblings. There is no evidence they consummated their marriage.

How did it end?
Ptolemy was forced to flee Alexandria when the forces of Caesar and his sister-wife Cleopatra claimed victory. He reportedly drowned attempting to cross the Nile when fleeing.

Julius Caesar

Roman, 100-44 BCE

How did they get together?
Cleopatra and her brother both needed Caesar's support. Cleopatra met with Caesar before their scheduled meeting and managed to sway his vote. Her methods can be left to the imagination.

Was it true love?
Although the union was initially spawned from mutual political gain and the two were forbidden by Roman law to marry, Cleopatra seemed to stay loyal to Caesar and had his child.

How did it end?
This love affair was cut short when Caesar was assassinated on the Ides of March.

Mark Antony

Roman, 83-30 BCE

How did they get together?
Antony summoned Cleopatra to see if she would hold true in her promised support during the war against the Parthians. She reportedly charmed him during this meeting, perhaps much the same way she had Caesar.

Was it true love?
Although it may have been borne out of political agendas, the two had three children together, and Antony risked everything to be with his Egyptian queen.

How did it end?
After the ill-fated Battle of Actium, Antony committed suicide upon mistakenly hearing Cleopatra was dead, and she quickly followed suit.

In the middle of this political turmoil, Cleopatra found herself facing a familiar rival. Her brother was back and, aided by his many guardians and regents, was now a vicious and ruthless king who was not afraid to wipe her from the land and from history. He completely erased his sister's name from all official documents and backdated his monarchy, claiming sole rule since his father's death. With her popularity and reputation already in tatters, the disgraced queen fled the city of her birth before an angry mob could storm the palace and inflict upon her the same grisly fate as so many of her greedy and ill-fated predecessors.

Having lost not only the support of her people but also the land she so strongly believed was hers to rule, Cleopatra escaped to Syria with a small band of loyal supporters. Fuelled by outrage at her brother, and even more so at the advisors who had crafted him into a vicious enemy, Cleopatra did not abandon her ambitions, but set about building the army she would need to reclaim her throne. As the female pharaoh amassed her forces in Syria, her young brother, barely 13 years old, became distracted by the ever-pressing Roman civil war. After a humiliating defeat to Caesar in Pharsalus, the Roman military leader Pompey the Great fled to the one place he was assured he could find refuge; his old ally, Egypt.

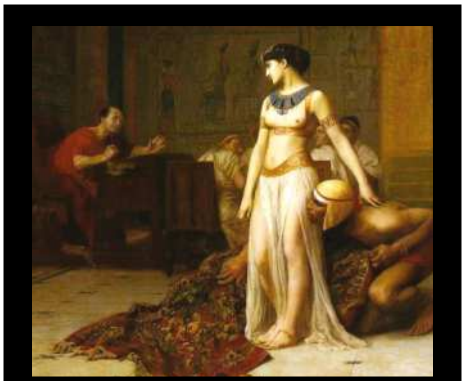
With his wife and children watching nervously from afar, Pompey disembarked his grand ship to board a small fishing boat to the shore. The Egyptian boy pharaoh, Ptolemy, sat on the shore in a throne fashioned specifically for the occasion. He watched Pompey closely, his face guarded and unreadable, but the men around him threw their arms open and, with wide smiles, cried, "Hail, commander!" It was not until the ship reached the shore that Pompey realised the murderous web in which he was entangled. Before he could cry out he was ran through with a sword and stabbed over and over again in the back. While the once-great consul was decapitated and his mutilated corpse thrown into the sea, Ptolemy did not rise from his throne. The ceremony had been a ruse; a rival of Caesar's was more valuable dead than alive.

When Caesar arrived in the harbour of Alexandria four days later, he was presented with the head of his rival. However, in mere moments Ptolemy's advisors realised their mistake, for the Roman general was completely and utterly appalled. He wept loudly and openly before leading his forces to the royal palace in Alexandria. As he observed the local resentment and civil war threatening to break the land in two he made a decision; he needed the wealth that Alexandrian taxes would give him, and the only way of increasing taxes was to establish stability in the city. The sibling rivalry had to end. He summoned Cleopatra and Ptolemy to appear before him. This was easy for Ptolemy who swiftly journeyed to Alexandria, but Cleopatra would have to use all her cunning just to make it into the city alive.

With the harbour blocked by her brother's ships, she slipped away from her troops and travelled in a small boat along the coast in the dead of night. Her journey had been completely and utterly unfitting for a pharaoh of Egypt, a Ptolemy queen; but victory demanded sacrifice and she was confident the streets and waters she was being smuggled down would soon be hers again. It had been a challenge to make it into the palace district, but the real night's work was about to begin – she was about to go face to face with arguably the most powerful man in the known world.

Her brother would bend over backwards, slay Caesar's enemies and kiss his feet for his support, but he was quick to panic, eager to please and terrified of angering Rome. Her brother was a fool. Caesar needed Egypt as much as Egypt needed Rome and she would use that fact to her advantage.

> Cleopatra did not abandon her ambitions, but set about building the army she would need to reclaim her throne



Five myths unravelled

She was smuggled in a rug

The image of a dishevelled and flushed Cleopatra being unrolled from a Persian rug at Caesar's feet after being smuggled into the palace comes from the overzealous pen of Greek biographer Plutarch, but it's difficult to prove this happened. It seems unlikely that Caesar, one of the most powerful men in the world, would have welcomed a suspicious package into his room and even if so, there's no reason for her not to have emerged earlier and made a more elegant entrance.

She was a femme fatale

The idea that Cleopatra flittered between powerful men, wooing and manipulating with no idea of who fathered her children, is the result of an ancient smear campaign run against her by Roman officials. In fact, there's only evidence of her having been with two men: Julius Caesar and Mark Antony.

She was Egyptian

One of the most famous Egyptian pharaohs of all time wasn't Egyptian at all – she was Greek. Her family line is that of Ptolemy, one of the generals of Alexander the Great, and despite her family living in Egypt for over 300 years, she would have been regarded as Greek. Cleopatra was actually rare in that she could speak Egyptian, unlike many of her predecessors.

She wore a fake beard

The concept of female Egyptian queens sporting fake beards comes from the Egyptian belief that the god Osiris had a grand beard, prompting Egyptian pharaohs to do the same to establish themselves as divine beings. But by the time of Cleopatra this tradition had all but died out, and there's no record of her donning a fake beard. In fact, the only female pharaoh known to have worn one is Hatshepsut.

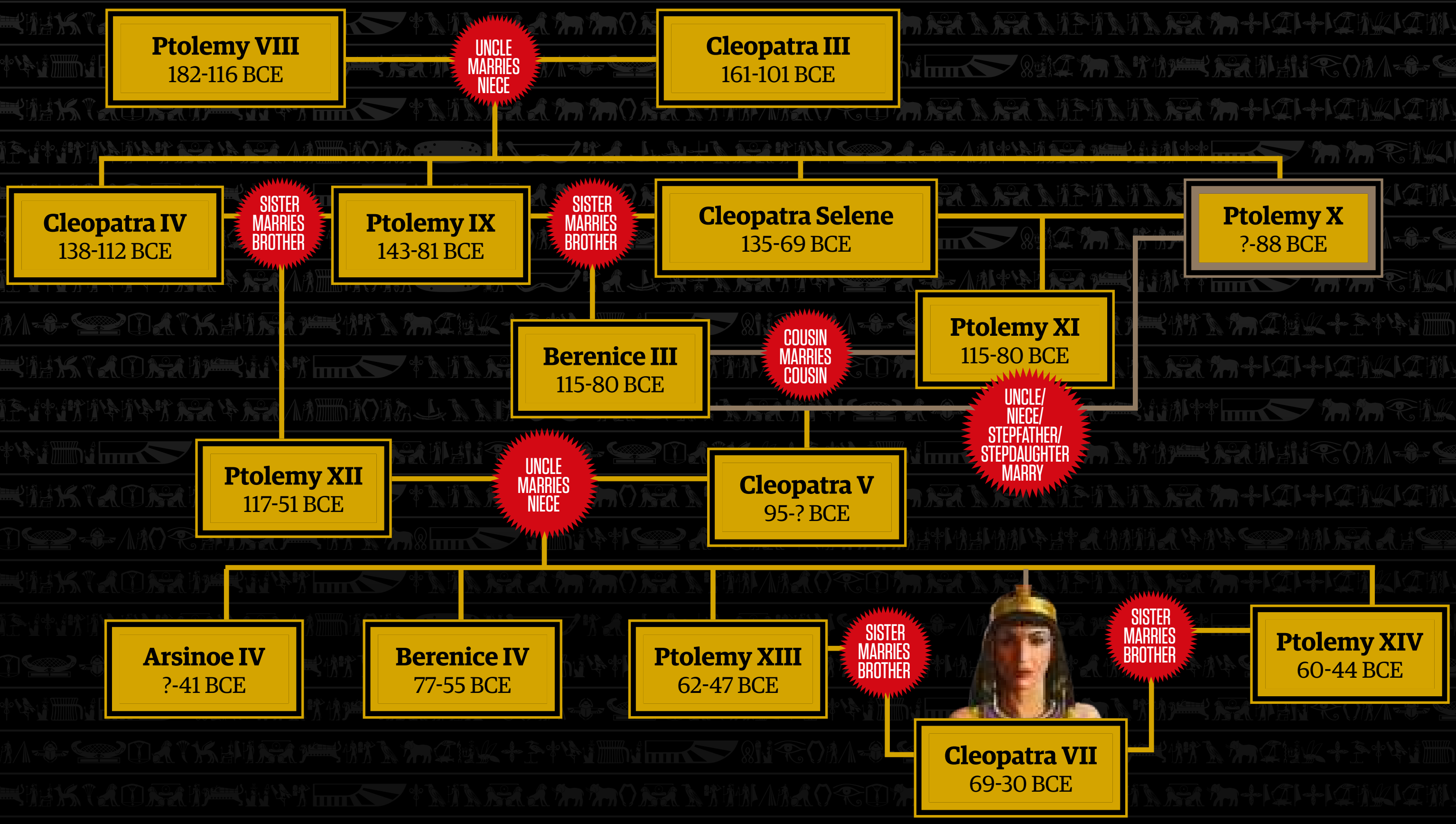
She died from an asp bite

This myth has gained momentum due to paintings of Cleopatra holding a snake to her bosom as she passes away. However, the accounts of this event are in some doubt, mainly because an asp will not cause a quick death as Cleopatra's was reported to be. It is more likely she drank a combination of poisons. The idea that the asp bit her breast is certainly incorrect, as all ancient sources state it bit her on the arm.

All in the family

Follow Cleopatra's family tree and discover just how close-knit the Ptolemies really were…

The Ptolemies of Egypt could trace their ancestry to Ptolemy I Soter, a Greek general of Alexander the Great who became ruler of Egypt in 323 BCE. After Alexander's death, his most senior generals divided his vast territory between themselves. Completely oblivious to the dangers of interbreeding, it became customary for the Ptolemies to marry their brothers and sisters. It was convenient for them as not only did it ensure queens could be trained for their role from birth, but also established them as an elite, untouchable class far removed from the masses, similar to the revered Egyptian gods who married their sisters.


Ptolemy VIII
182-116 BCE
UNCLE MARRIES NIECE
Cleopatra III
161-101 BCE
Cleopatra IV
138-112 BCE
SISTER MARRIES BROTHER
Ptolemy IX
143-81 BCE
SISTER MARRIES BROTHER
Cleopatra Selene
135-69 BCE
Ptolemy X
?-88 BCE
Berenice III
115-80 BCE
COUSIN MARRIES COUSIN
Ptolemy XI
115-80 BCE
UNCLE/ NIECE/ STEPFATHER/ STEPDAUGHTER MARRY
Ptolemy XII
117-51 BCE
UNCLE MARRIES NIECE
Cleopatra V
95-? BCE
Arsinoe IV
?-41 BCE
Berenice IV
77-55 BCE
Ptolemy XIII
62-47 BCE
SISTER MARRIES BROTHER
SISTER MARRIES BROTHER
Ptolemy XIV
60-44 BCE
Cleopatra VII
69-30 BCE

She would not wait to bow and plead her case alongside a child, she was going to speak to the Roman general that night. She sneaked into the palace and managed to find her way into Caesar's private chamber.

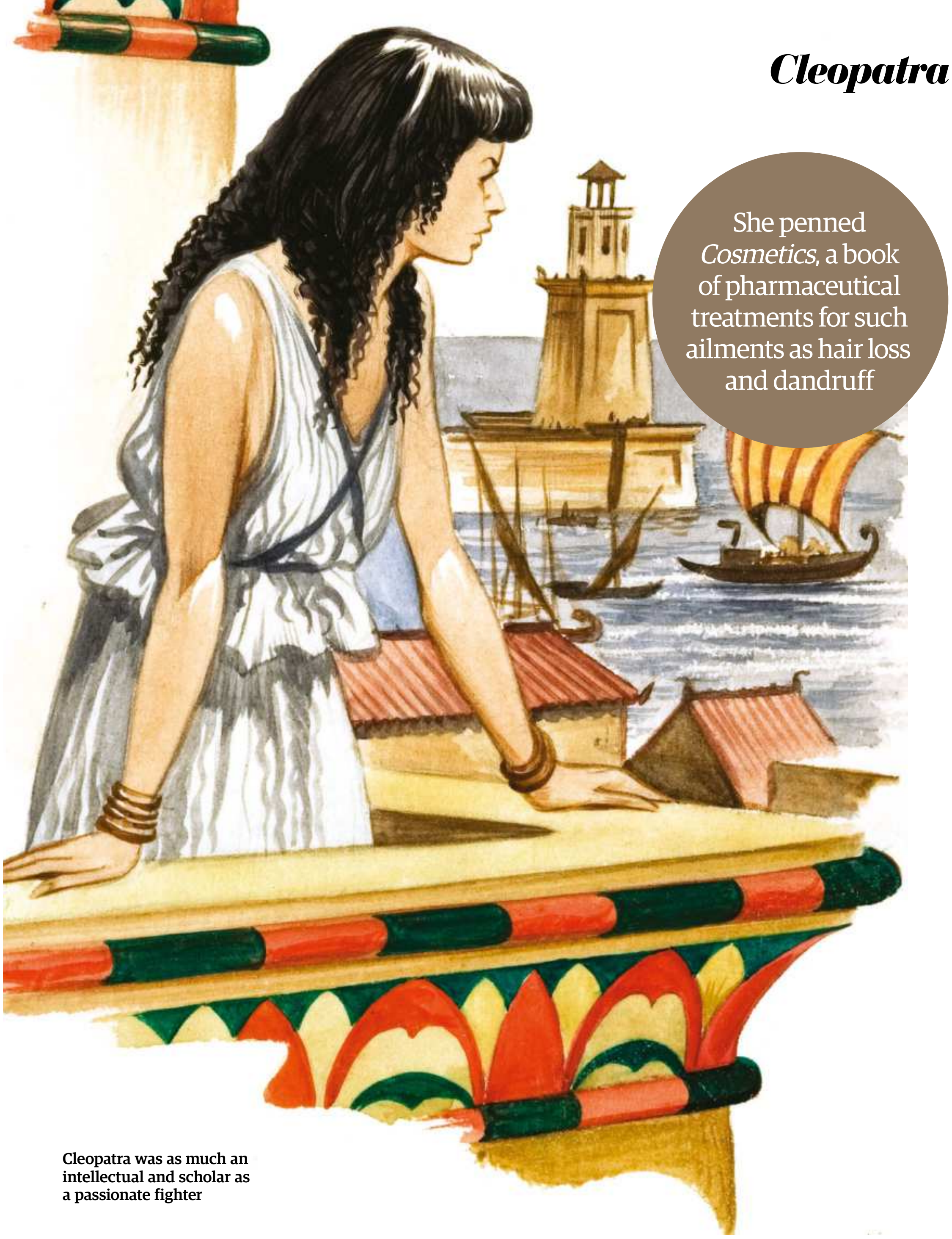
The 'dictator in perpetuity', as he would come to be known in Rome, towered over the small woman; she would have to crane her head to look him in the eye, she realised instantly. He was far older than the young, bold Egyptian queen and his receding hairline was poorly disguised. The general was past his physical prime, but he had just won his greatest victory. This was her first time gazing upon the Roman celebrity known the world over, but this was also the first time he was facing her. Her brother was a child, a mere puppet pharaoh on strings, dancing to the pulls of his corrupt advisors, but she had been granted all the charm, intelligence and ambition of her forefathers. She would steal Caesar and Rome's support while her brother slept; her charisma would succeed where her brother's sword had failed.

The young Ptolemy XIII awoke the next day, not expecting his dangerous older sister to have even made it to the palace. When he discovered that not only was she there, but had also seduced Caesar overnight into joining her cause, it was the final straw. Screaming in desperation, he fled from the palace, tore his crown from his head and fell to his knees. His sister had done it again. She was completely and utterly impossible to get rid of and, even as the crowd surged forward in protest, Caesar could not be swayed. The siblings would rule Egypt together, just as their father had intended. Rome had spoken.

Cleopatra's image on a silver coin showed her to have a hooked nose

The apparent peace did not last long. Already poisoned by the ambitious whispers that had fed his youth, Ptolemy joined with his rebellious sister Arsinoe IV. Between them they amassed an army large enough to challenge Cleopatra and Caesar's forces in Egypt. The country they fought for would pay the price, and in December of 48 BCE the famous stone city of Alexandria was set alight, destroying not only the lives of hundreds of citizens, but also the world-famous library that housed countless priceless manuscripts. When Caesar's reinforcements poured into the city from Pergamum, Ptolemy's forces were finally defeated. The young and impetuous king tried to flee across the Nile in an overcrowded boat, but his vessel sank, dragging him and his elaborate, heavy golden armour down with it.

One Ptolemy was dead, but another still lived. Ptolemy XIV, Cleopatra's 13-year-old brother, became her husband and co-ruler immediately after her brother's death. She might have had Caesar's support, but tradition was still tradition



Cleopatra was as much an intellectual and scholar as a passionate fighter

She penned *Cosmetics*, a book of pharmaceutical treatments for such ailments as hair loss and dandruff

and a lone woman could not rule Egypt. As for Caesar, he had put in place a reliable partnership and Egypt was, for all intents and purposes, a Roman territory. In a lavish display of the new union, a fleet of Roman and Egyptian ships sailed down the Nile accompanied by the grand royal barge where Cleopatra and Caesar sat together.

Egypt and Rome were united, but Cleopatra still found herself co-ruler to another Ptolemy who would inevitably grow up to be ambitious and treacherous. She could not allow another brother to be swayed by advisors and driven against her. As long as Ptolemy XIV lived, her rule was threatened. She wasn't a fool, she knew Egypt would never accept a solitary female queen, but there was a technicality that would ensure her effective sole rule. Her partnership with Caesar had provided more than his political support; she was pregnant and in 47 BCE she gave birth. The gods' will was in her favour – the child was a boy. She named him Caesarion, or 'Little Caesar', and now had an heir. For three years Cleopatra tightened her grip on the Egyptian throne, slowly winning the love of the Alexandrian mobs that had previously screamed for her head. She travelled to Rome with her son and resided in Caesar's country house as heated rumours about the paternity of her son gained speed. She did little to squash them; a possible heir of Caesar was a very powerful tool to have.

When Caesar was assassinated on 15 March 44 BCE, Cleopatra left Rome and returned to Alexandria. If there was ever a time to act, it was now. Without her powerful Roman lover by her side she needed an ally who could assure her rule, one who wasn't going to lead a rebellion against her. Brothers, she had learned, could not be trusted. Later that year the youngest Ptolemy was found dead, seemingly poisoned. The people's grief was muted; the death of Ptolemies, however young, was not so uncommon in Egypt, and the people had a new pharaoh to replace him: the young Caesarion. Cleopatra had finally done it, she was Egypt's pharaoh, and with her son an infant she was ruling alone in all but name. The power of Egypt was hers.

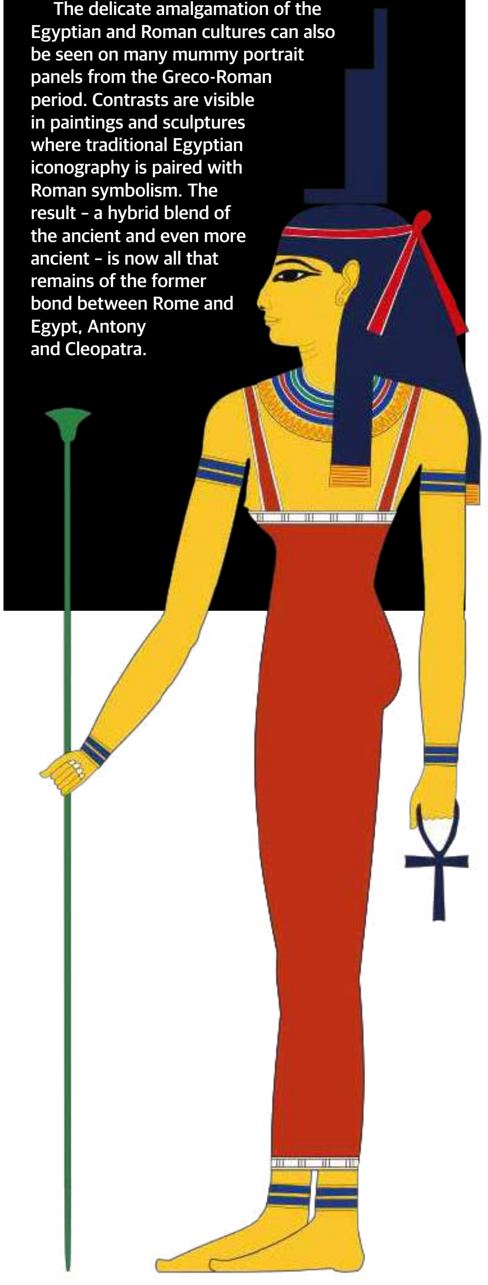
End of an Era

Cleopatra's surviving children were adopted by Octavia, sister of Augustus. They became Roman citizens and faded quickly into obscurity. Egypt, now a Roman province, was ruled by a prefect. Greek remained the official language. While Alexandria continued to flourish, it became a site of many religious and military uprisings.

In 269 CE, Alexandria was claimed by yet another woman, when Zenobia, the ferocious warrior queen of Palmyra, conquered Egypt. Zenobia, who was an admirer of Cleopatra, was quick to behead her detested Roman foes. She ruled Egypt until 274, before she herself was taken hostage by the Roman Emperor Aurelian. In an ironic twist of fate, Zenobia appeared in golden chains during Aurelian's Triumph in Rome.

The legacy of Greco-Roman Egypt still survives. It can be seen in a series of magnificent temples that were built along the River Nile. These include the Temple of Hathor at Dendera, where fabulous images of Cleopatra and Caesarion still dominate the walls therein.

The delicate amalgamation of the Egyptian and Roman cultures can also be seen on many mummy portrait panels from the Greco-Roman period. Contrasts are visible in paintings and sculptures where traditional Egyptian iconography is paired with Roman symbolism. The result – a hybrid blend of the ancient and even more ancient – is now all that remains of the former bond between Rome and Egypt, Antony and Cleopatra.



Alexander: Liberator of Egypt

A shrewd and far-sighted ruler or a pitiless warlord, Alexander the Great's military prowess led him to conquer the powerful kingdom of Egypt

Only one of Alexander the Great's dreams has survived, and it tells how in 331 BCE a venerable old figure - possibly Homer himself - is said to have visited the sleeping conqueror and, with a recital of lines from *The Odyssey,* advised him on the site for his great Egyptian city, Alexandria.

It is fitting that this sole recorded dream-memory should reference the epic poet, for Alexander strived to embody the Homeric ideal above all. Like Hector or Achilles, he would stand astride history as one of its most celebrated warriors, his deeds in life still echoing down to modern times. According to one of Alexander's greatest modern biographers, Robin Lane Fox, the Macedonian king feasted upon the words of Homer, "not as a distant reader but more in the spirit of a marcher baron living out the ballads which mirrored his home world."

The seed of that home world was Macedonia, a kingdom lying to the north of Greece. In 356 BCE its king, Philip II, and his queen, Olympias, welcomed the birth of Alexander, who grew up a strong and able-bodied young man. At the age of 16 he acted as regent while his father waged war against the Persians. Two years later he won the Great Triple Laurel Crown Ribbon commanding the left wing of King Philip's army at the battle of Chaeronea, which ultimately brought Athens under the Macedonian yoke.

Alexander's father, Philip II of Macedon, hired the great philosopher Aristotle to tutor his son from the age of 13

In 336 BCE, Philip was murdered. His son inherited the throne and his father's Persian campaign. Upon his accession, a confederacy of enemies menaced the young king on all sides, though he quickly crushed the irksome Illyrians and razed rebellious Thebes to the ground. In 334 BCE he crossed the Hellespont into Asia Minor and in Cilica earned one of a number of key victories over the Persians. More victories followed, before he then besieged Tyre and Gaza.

The conclusion to the siege of Gaza saw its male population slaughtered and the women and children sold into slavery, as was the custom of the time. The fate of the town's governor, or certainly the legend that survived, recalls the climax to Homer's *Iliad* and Achilles' treatment of his vanquished enemy Hector: Alexander passed thongs around his enemy's feet and dragged his battered body through the dust in his chariot's wake.

The fall of Gaza flung open the road to Egypt and in November 332 BCE Alexander entered the most powerful kingdom in the Persian Empire. With their Persian overlord, Darius III, absent following Alexander's victory at Issus during the previous year, the Egyptians had no protection from this battle-hardened invader and his well-

Alexander loosened the impregnable Gordian knot, which bound a sacred chariot to its yoke, with a stroke of his sword

ALEXANDER THE GREAT

Greek, 356-323 BCE

Brief Bio

Becoming king of Macedon after his father's murder, Alexander led the Greeks into war against the powerful Persian Empire. With charisma and cunning, he led from the frontline to build an empire that stretched from Libya to India, creating a new golden age for Hellenic culture.

Although the most famous stood in Egypt, Alexander founded 70 cities commemorated with his own name

His Egyptian successor

A general in Alexander's army, Ptolemy fought bravely at Issus and travelled with his king to the Siwah oasis, where Alexander is thought to have confirmed his divine heritage.

He became ruler of Egypt upon Alexander's death in 323 BCE. In 304 BCE he adopted the title of pharaoh and established the Ptolemaic Dynasty, which lasted until the death of Cleopatra VII in 30 BCE and Egypt's incorporation into the Roman Empire.

He is widely regarded as a wise and far-sighted ruler, taking control over Cyprus, Palestine and portions of Asia Minor. The people of Rhodes whom he defended from attack by his Macedonian rival Demetrius bestowed his title of Soter, or saviour, upon him in 305 BCE.

He began construction on the Great Library at Alexandria, a dream Alexander himself was unable to realise during his lifetime, and the city became a centre of learning with a reputation that spread across the Mediterranean world and beyond. The Great Library would incorporate the private library of Aristotle, the great philosopher.

It is thought that Ptolemy's son (Ptolemy II) most likely completed the library upon his father's death. Ptolemy Soter died at 84. The library was later destroyed some time between 48 BC and 642 AD according to historians and Egyptologists.

> "Alexander travelled to the oasis of Siwah, home to the oracle of the mysterious ram-headed creator god, Amun"

marshalled troops. Alexander's navy, meanwhile, was already at anchor in the strategically important city of Pelusium. Hence, the Persian satrap in Egypt, Mazaces, sought only to win Alexander's grace and favour. "The fact that Phoenicia, Syria and most of Arabia were already in Macedonian hands," writes the ancient historian Arrian, a key source for Alexander's story, "induced him [Mazaces] to receive Alexander with a show of friendship and to offer no obstacle to his free entry into Egypt and its cities."

Mazaces met Alexander in the Egyptian capital of Memphis, and in the home of the pharaohs the invader sacrificed to the native gods. This show of piety won him good favour with the natives who, according to some sources, still held a festering resentment against the Persian king Artaxerxes III, who after reconquering Egypt 11 years previously had eaten the sacred bull of Apis. Whatever the veracity of this tale, its purpose served Alexander well as 'the acclaimed avenger of Persian impiety'.

From Memphis he sailed down the Nile and stepped ashore at Canopus, where, in 331 BCE, he commenced work on one of his crowning achievements, the founding of Alexandria. With those Homeric verses perhaps ringing in his head, he chose its location on the ground between Lake Mareotis and the sea, facing the island of Pharos, where book four of *The Odyssey* spoke of the stranding of Menelaus. It was here at Pharos that the world's first lighthouse would arise in the following century, claiming immortality as one of the Seven Wonders of the Ancient World.

Historians argue over Alexander's intentions behind the foundation of the eponymous city, some claiming that he hoped it would supersede Memphis as the new capital of Egypt. Whatever the case, Alexandria's power and prosperity across the next two millennia would likely outstrip even its founder's ambitions. It replaced Tyre as the pre-eminent international marketplace, working against the commercial vitality of the Phoenicians and boosting that of the Greeks.

As building work on his illustrious city began, Alexander departed and travelled west with a group of attendants before heading south for 300 miles through the desert to the oasis of Siwah, home to the oracle of the mysterious ram-headed creator god, Amun (also known as Amen, or Ammon), whose name meant 'the Hidden One'.

The reasons for Alexander's journey are unclear; seldom did he depart from a militarily strategic course. The historian Callisthenes of Olynthus, writing just 20 months after Alexander's visit, believed that "it was Alexander's glorious ambition

> Alexander's first wife, Roxanne, was reputedly the most beautiful woman in Asia. Her Iranian name was 'little star'

Defining moment

Alexander's accession to the Macedonian throne

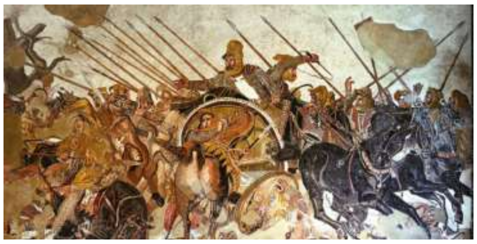
336 BCE

The assassin Pausanias murders Philip II on the day of his wedding to the concubine, Cleopatra (not to be confused with the famous Egyptian queen). The author of the plot remains unknown, though both Olympias and Alexander invite suspicion. It is argued that Alexander is vindicated by the allegiance shown to him by Philip's loyal generals, Antipater and Parmenio. The Greek states subjugated by Philip see a chance to throw off the Macedonian yoke, while in Asia Cleopatra's father champions the claim of his daughter's infant son. However, Alexander soon reminds his subjects of Macedonia's pre-eminence.

Timeline

356 BCE

- **Alexander of Macedon is born**
  Philip II of Macedon and his queen, Olympias, welcome the birth of their son. Philip's statesmanship and military power eventually give him control of independent Greece before he launches his Persian crusade.
  356 BCE
- **Battle of Chaeronea**
  Philips's victory against Athens, in which Alexander commands the heavy cavalry that protect the phalanx, ensures the hegemony of Greece – which has passed successively from Athens to Sparta to Thebes – now belongs to Macedonia.
  338 BCE
- **Alexander invades Persian empire**
  Having spent the winter making his preparations, Alexander crosses the Hellespont in the spring with 30,000 infantry, including six regiments of the Macedonian phalanx, and 5,000 cavalry.
  334 BCE
- **Battle of Issus**
  After defeating the Persians at Granicus and capturing Miletus, he takes on for the first time Persian King Darius III at Issus, where he wins a great victory. Darius flees from the field, leaving behind his wife and mother.
  333 BCE
- **Siege of Tyre**
  As Alexander marches through Phoenicia, the great cities of Sidon and Byblos surrender, though mighty Tyre refuses him entry and resists his siege. When the Persian fleet joins Alexander, however, the tide turns in his favour.
  332 BCE



to go up to Amun because he had heard that Perseus and Heracles had gone there before him."

Writing much later, Arrian claims, "Alexander longed to equal the fame of Perseus and Heracles; the blood of both flowed in his veins and just as legend traced their descent from Zeus, so he, too, had a feeling that in some way he was descended from Amun."

Modern historians follow a different logic, claiming that he set out with envoys from Cyrene in a bid to secure his western frontier with Libya. His detour added to his legend, however, and Zeus-Amun (the two gods becoming intertwined) was eventually said to have visited his mother, Olympias, in order to sire her son.

> Considered the greatest military genius of the ancient world, Alexander did not lose a single battle in 15 years of war

Leaving the desert and returning to Memphis, "the new son of Zeus relaxed, giving free rein to his generosity and his sense of myth," writes Fox. "Sacrifice was offered to Zeus the King, the Greek god whom Alexander believed that he had visited at Siwah in a Libyan form." He enacted various games and poetry recitals before setting about the arrangement of his Egyptian administration.

"Alexander was deeply impressed by Egypt," writes Arrian. "The potential strength of the country induced him to divide the control of it among a number of officers, as he judged it to be unsafe to put it all in the hands of one man." In truth, Alexander followed the lead of the Persians and the native pharaohs by dividing the country into two - Upper and Lower Egypt, it is thought - with two native 'nomarchs' to administer justice and day-to-day governance. Two Macedonian generals, meanwhile, were appointed to oversee them, although Alexander's system did little to disrupt the life of the country.

Traditionally the Egyptian economy had not been run by coin but by trade in kind, and the loss of the Nubian gold mines many years before had deprived the pharaohs of a source of precious metals. The hiring of soldiers and the raising of fleets, however, required hard currency and, even before the arrival of the Persians and then the Greeks, the pharaohs had in recent times employed a Greek general to raise bullion from those who held it - namely the nobility and the priesthood. Alexander continued this tradition, appointing a special minister, Cleomenes, to raise money for the fleet and mercenary battalions.

Revolt in Samaria, far to the north, saw Alexander leave Egypt, never to return. His remarkable ambitions and talents carried him instead into further war against Darius and to his campaigns beyond the Indus. His great victory against the Persian king came at Gaugamela in 331 BCE. A little over three years later, Alexander set out on his ill-fated conquest of India, which precipitated his death in Babylon in 323 BCE, aged just 32.

In Egypt, meanwhile, Cleomenes continued his duties, overseeing the completion of the mighty city of Alexandria. Such was the prosperity born from his position that when Alexander's successor in Egypt, Ptolemy, put Cleomenes to death and inherited his vast wealth, he is said to have taken 8,000 talents. As the Ptolemaic dynasty prospered, Egypt, with Alexandria a shining jewel in its commercial crown, stood as a land of vast power and potential.

Darius III, King of Persia, Pharaoh of Egypt

When Alexander launched his famous conquest of Asia, it was the Persian king Darius III who would feel the brunt of the Macedonian military might. Darius himself had enjoyed a notable career as a soldier and was reputed to have distinguished himself during battle against a rebellious tribe in central Iran. His empire also included Egypt, which came into the Persian fold in 343 BCE, courtesy of Artaxerxes III's significant defeat of Pharaoh Nectanebo II.

Alexander's first victories in Asia came against Darius' satraps, though the great king took to the field in 333 BCE, fighting Alexander at the Battle of Issus. Despite outnumbering the enemy, Darius's army was routed and he left his shield and robe on the field. Ancient historians claimed that roughly 110,000 Persians perished compared to an estimated 300 Macedonians.

Alexander's victory at Issus threw open the road to Syria, whose fall in turn lay Egypt open to his advance. When his conquest of Asia resumed in 331 BCE, Alexander and Darius met again at the battle of Gaugamela, arguably the Macedonian king's most famous victory. The ancient historians numbered the Persian troops at 1 million strong – a ridiculous figure, though few modern historians would deny that they greatly outnumbered the Greeks who totalled around 47,000 men.

Darius again fled the battle before its conclusion, though his subsequent murder by his own courtiers deprived Alexander of his desire to take the king alive. Alexander returned his body to Persepolis and ordered that he be buried like his predecessors Alexander married Darius' daughter Stateira at Susa in 324 BCE.

Defining moment

The Sogdian Rock

327 BCE

Alexander pushes on to conquer the far East, taking Hyrcania, Areia, Bactria and Sogdiana. In modern-day Samarkand, in central Asia, he faces a final clutch of Sogdian rebels under the leadership of Oxyartes. The significance here is not the size of the force, but its location in the seemingly impenetrable natural fortress of the Sogdian Rock. Arrian records how 300 men scale the rock, signalling their success to the troops below by waving bits of linen. Alexander sends a herald to tell the defenders that his 'winged men' have arrived. The defenders surrender. Alexander then marries Oxyartes' daughter, Roxanne, uniting Europe and Asia. He sets out to conquer India.

Battle of the Hydaspes
Crossing the Indus, Alexander takes on the ruler Porus, who brings 200 war elephants into battle. Alexander's light-armed troops attack the advancing Indian forces before the phalanx advances and drives the beasts back upon their own men.
326 BCE

Defining moment

Death of Alexander

323 BCE

While preparing for an Arabian expedition, Alexander falls ill in Babylon and dies in his 32nd year. In 12 years of conquest he has taken western Asia, though so many of his ambitions remain unfulfilled. In what would stand as a tragedy in the great king's eyes, the unity of his empire crumbles upon his death, broken up between a clutch of hard-headed Macedonians. These are capable men and many prove practical rulers, but none shares Alexander's talent or vision. Still, Alexander's legacy prepares the road for the Roman Empire, and then the Christian world that follows.

323 BCE

Conquest of Egypt
After taking Gaza, the great city of the Philistines, Alexander marches unopposed into Egypt, whose satrap offers a quick surrender. Alexander, now lord of Egypt, Phoenicia and Syria, then marches on the Persian heartlands.
332 BCE

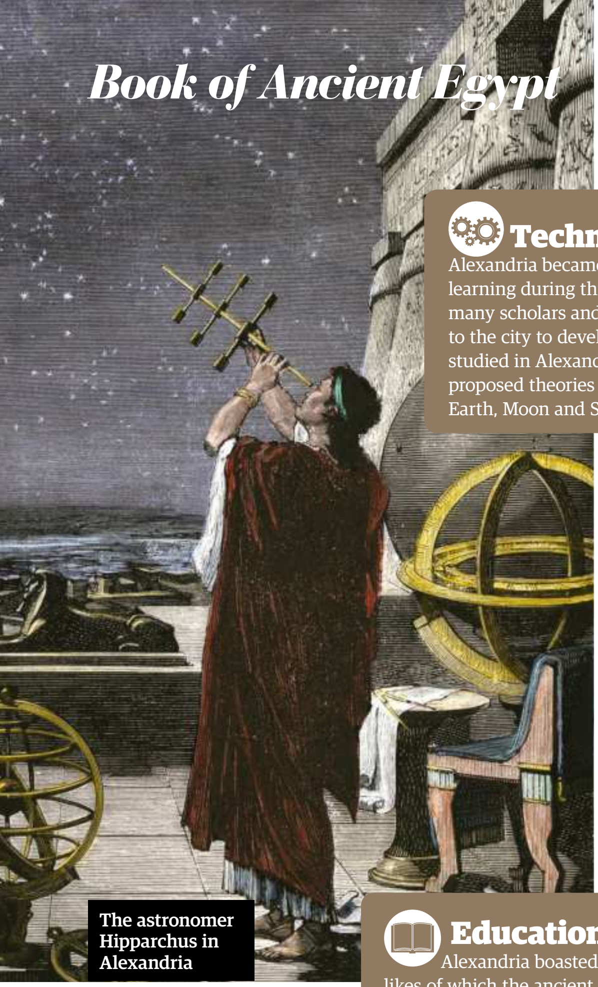
Battle of Gaugamela
Darius had been granted 18 months to raise a new army after Issus and his mighty force opposes Alexander at Gaugamela. Alexander's skirmishes break the charge of the Persian scythed chariots and his phalanx and Thessalian cavalry win the day.
331 BCE

Legend of the Branchidae massacre
Though widely dismissed as untrue, this massacre stands as one of the most lurid chapters in the Alexander legend, the conqueror allegedly slaying a town of innocents in revenge for their ancestors' decampment from Greece to Asia during the Persian Wars.
327 BCE

The conquest halts
Hydaspes is a watershed and the victory accrues many losses. The army refuses to go any further and Alexander, though almost at the 'world's end', is forced to return to Babylon.
326 BCE

The desert march
Alexander's return to Babylon is tarnished by his decision to march through the Gedrosian desert. Many of his battle-weary troops succumb to the heat, energy-sapping dunes and lack of water.
325 BCE

Death of Hephaestion
While encamped at the Median capital of Ecbatana, Alexander is shattered by the illness and death of his beloved friend and soulmate Hephaestion. It is said that Alexander crucifies the physician who fails him.
324 BCE



The astronomer Hipparchus in Alexandria

Technology

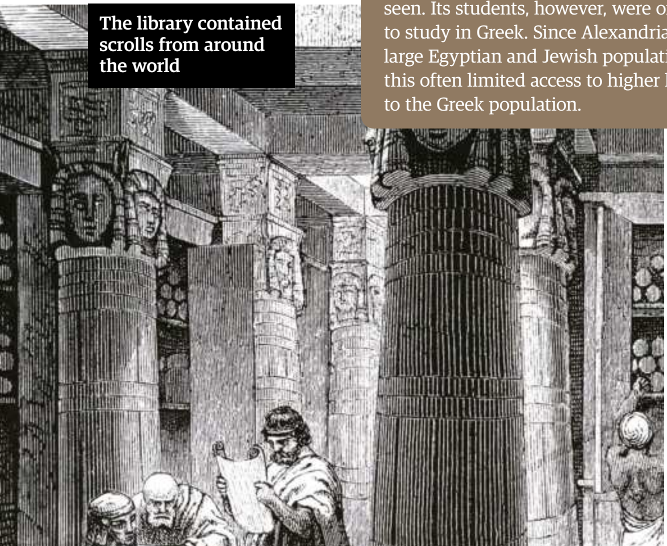
Alexandria became the centre of advanced learning during this period and, as a result, many scholars and philosophers travelled to the city to develop theories. Hipparchus studied in Alexandria's observatory and proposed theories on distances between the Earth, Moon and Sun.

Education

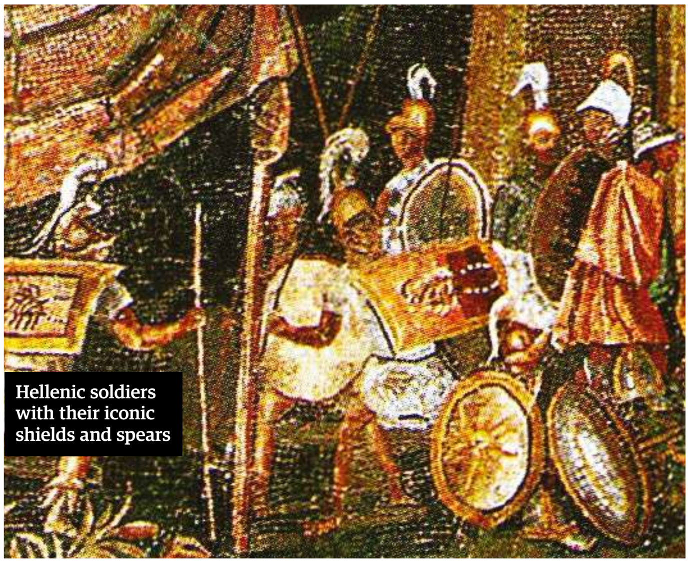
Alexandria boasted a library the likes of which the ancient world had never seen. Its students, however, were only able to study in Greek. Since Alexandria had large Egyptian and Jewish populations, this often limited access to higher learning to the Greek population.

Religion

Religion was of paramount importance for the Alexandrians. Ptolemy combined the gods and goddesses of Greece with their Egyptian counterparts, creating new cults and temples of worship. The god of the dead, Osiris, became the more Greek-looking Serapis.

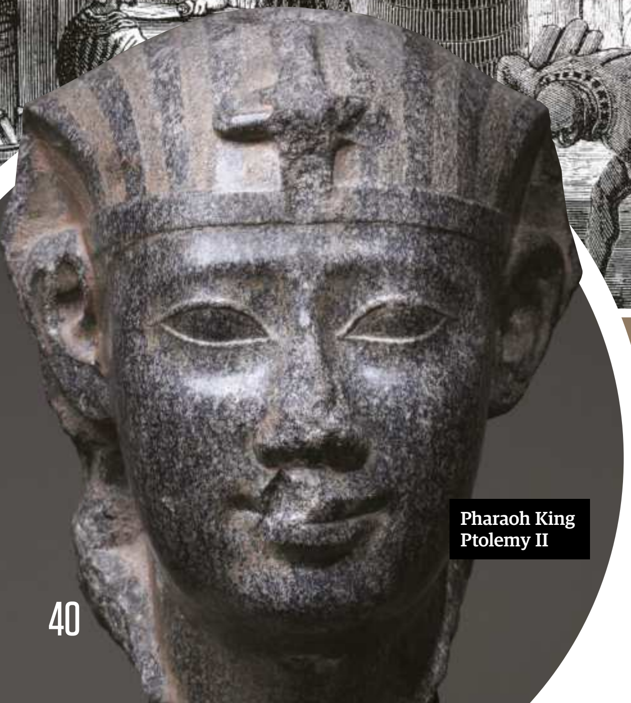


The library contained scrolls from around the world



Hellenic soldiers with their iconic shields and spears

The art and architecture of Alexandria was unique in its mix of Greek and Egyptian styles



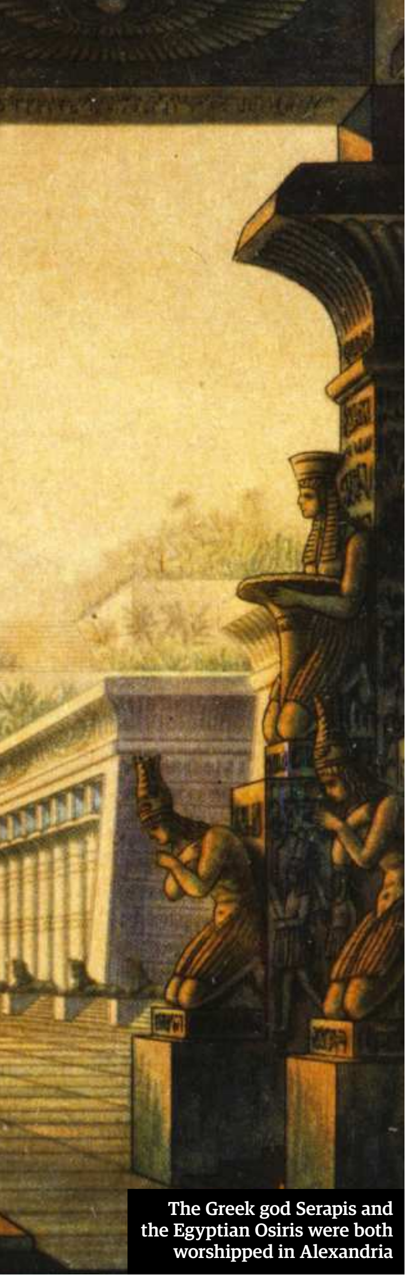
Pharaoh King Ptolemy II

Government

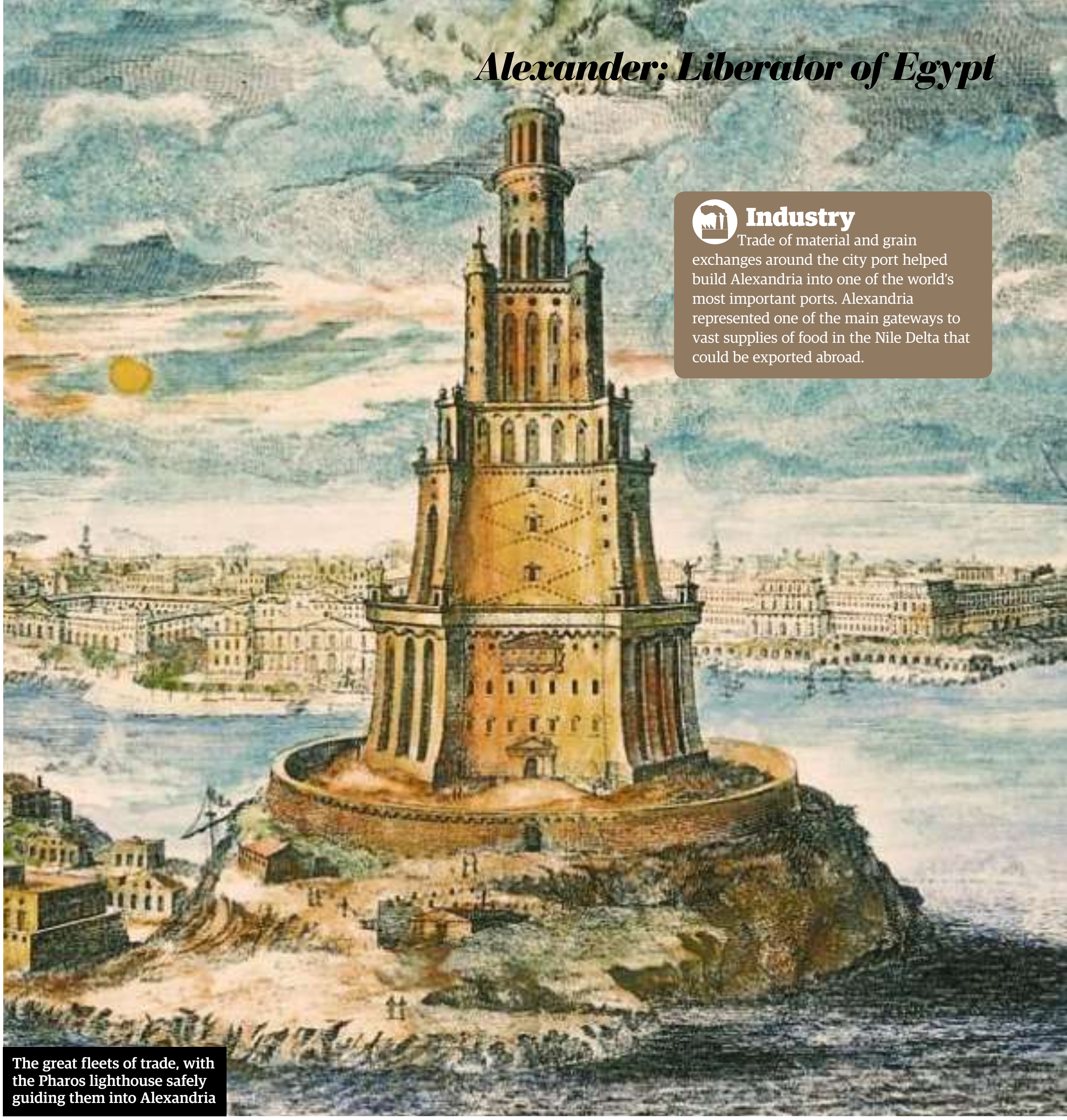
Alexandria was ruled by the Greek King Ptolemy II who, adopting the customs of Egypt, made himself pharaoh and dressed in Egyptian styles. Egyptians had to worship him as a god, but the Greeks were given a higher status and were not subject to his absolute rule.

Military

Alexandria's rulers had to muster their own forces from the populace to defend the city. The army was based around the model of Alexander, with armoured spearmen forming a phalanx. These men were usually Greek rather than Egyptian.



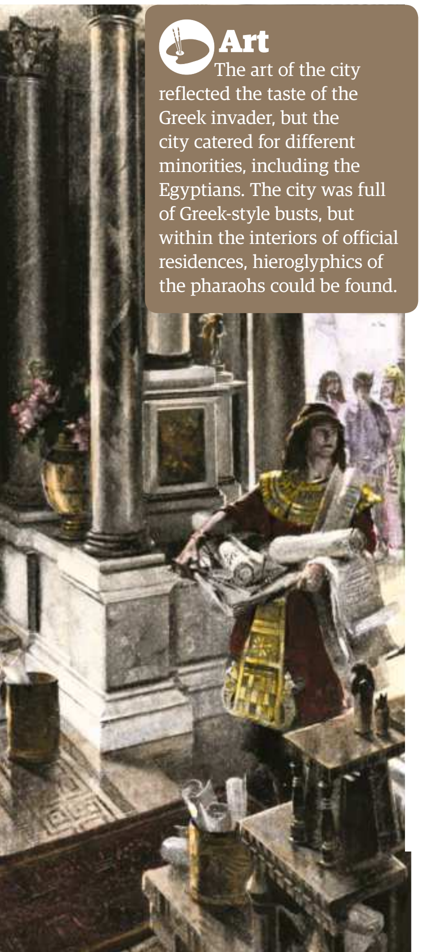
The Greek god Serapis and the Egyptian Osiris were both worshipped in Alexandria



The great fleets of trade, with the Pharos lighthouse safely guiding them into Alexandria

Industry
Trade of material and grain exchanges around the city port helped build Alexandria into one of the world's most important ports. Alexandria represented one of the main gateways to vast supplies of food in the Nile Delta that could be exported abroad.

Art
The art of the city reflected the taste of the Greek invader, but the city catered for different minorities, including the Egyptians. The city was full of Greek-style busts, but within the interiors of official residences, hieroglyphics of the pharaohs could be found.



Alexandria, 250 BCE

Experience the vibrant pace and diverse culture of the ancient world's most prosperous city, where many different cultures coexisted

Cosmopolitan, free and prosperous, the ancient city of Alexandria combined the culture and society of two great civilisations – the Ancient Greeks and Egyptians.

The city bears the namesake of its founder, Alexander the Great, who conquered the Nile Delta in 332 BCE and founded Alexandria at the location of a small Egyptian town called Rhacotis. As the city became part of the extended Greek Empire, Alexander personally approved its development and transformation into a great metropolis of culture and learning. Its streets were designed to reflect this reforming zeal, with its wide boulevards and Corinthian order columns surrounding a series of temples and vast meeting places.

Egyptian and Jewish influences remained, creating a unique and diverse port that quickly became the centre of the ancient world through its trading power and intellectual institutions.

By the time Ptolemy II ruled the city, Alexandria was the biggest metropolis in the ancient world, its sprawling suburbs and great thoroughfares surpassing Carthage and Rome in their grandness. As empires came and went, Alexandria remained as a golden gateway to the rich and abundant lands of the Nile, and as an independent city until the fall of Cleopatra in 30 BCE.

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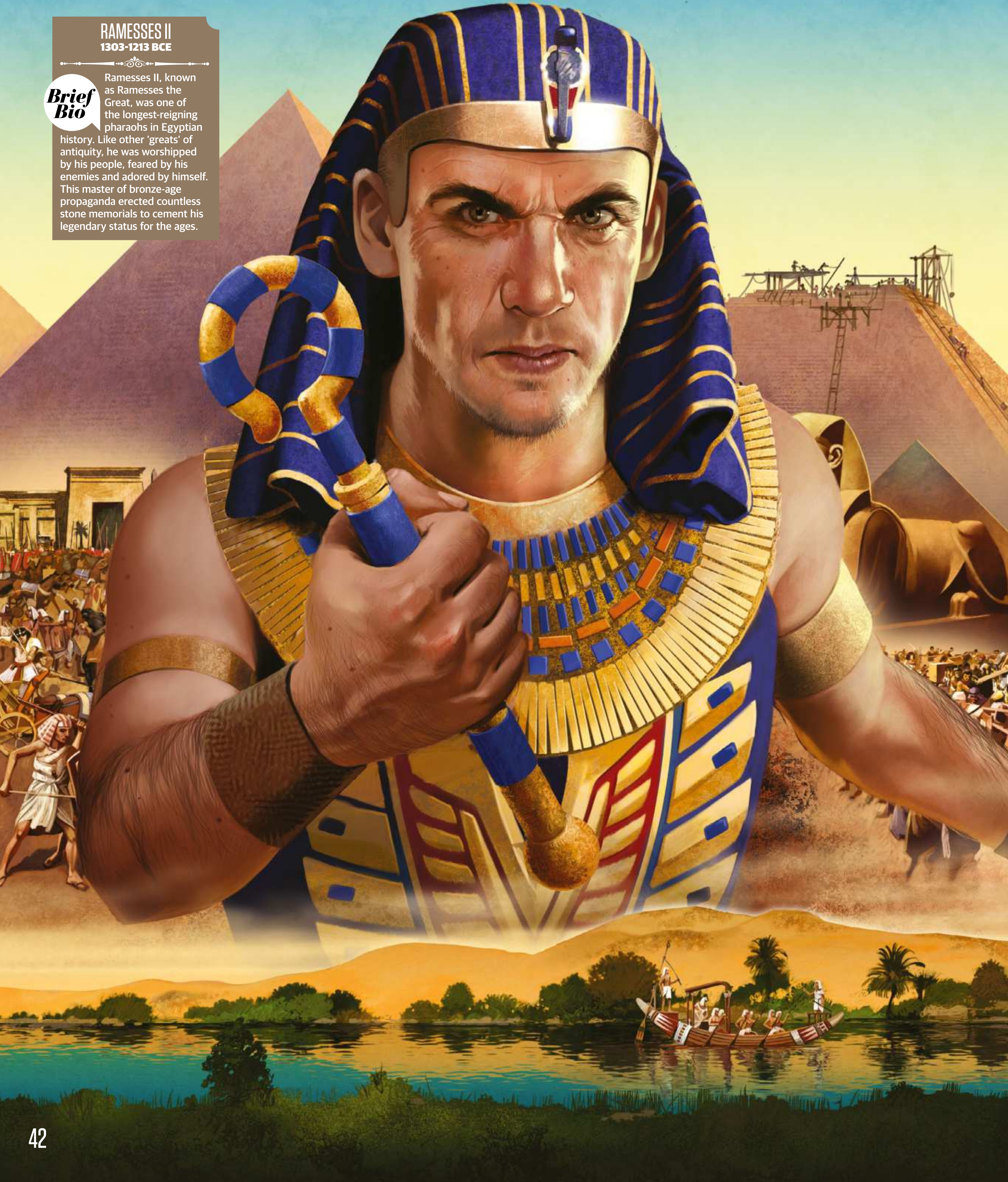
RAMESSES II

1303-1213 BCE

Brief Bio

Ramesses II, known as Ramesses the Great, was one of the longest-reigning pharaohs in Egyptian history. Like other 'greats' of antiquity, he was worshipped by his people, feared by his enemies and adored by himself. This master of bronze-age propaganda erected countless stone memorials to cement his legendary status for the ages.



The mighty Ramesses II

Immortalised in legend and poetry as Ozymandias, king of kings, Ramesses II was arguably the greatest and most powerful pharaoh of the Egyptian Empire

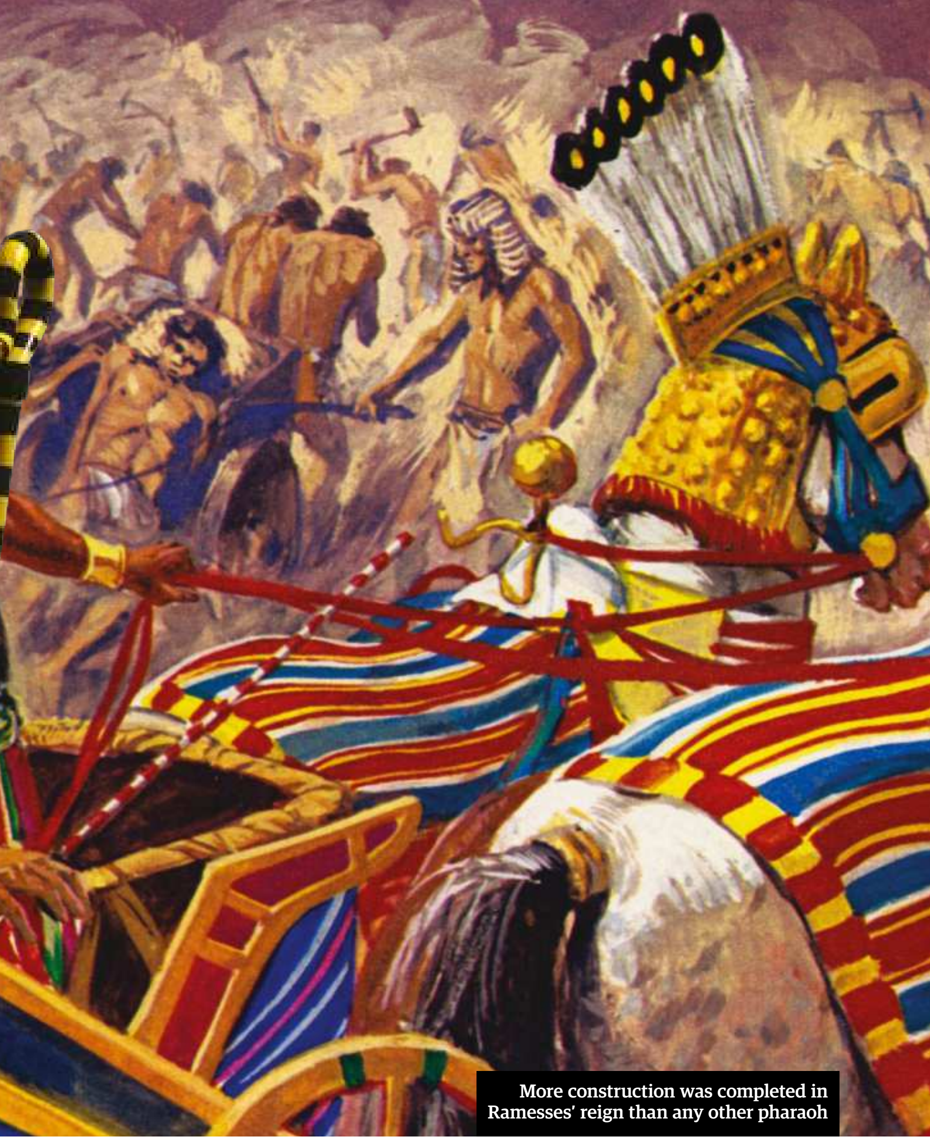
The year was 1274 BCE and a god was on the march. Standing six-feet tall with a square jutting jaw, thick lips and a long sharp nose, Ramesses II rode his golden chariot ahead of an army of 20,000 archers, charioteers and sandalled infantrymen. Only five years into his reign as pharaoh, he had already established himself as a fierce warrior and strategic military commander, the rightful blood heir to the newly established 19th Dynasty and a true spiritual son of the goddess Isis herself. Ramesses' soldiers would have seen their commander-in-chief as the rest of Egypt did: as a god in the flesh possessed of legendary strength and bravery, incapable of error and on a divine mission to re-establish Egypt as the dominant superpower of the Middle East.

After 30 years of rule, Ramesses was inducted into a group of longest serving kings. He would rule for another 36 years

Ramesses' destination was Kadesh, a heavily fortified Syrian city in the Orontes River valley. Kadesh was an important centre of trade and commerce and the de facto capital of the Amurru kingdom, a highly coveted piece of land sandwiched on the border between the Egyptian and Hittite empires. As a boy, Ramesses had ridden alongside his father Seti I, when the elder Egyptian king finally wrested Kadesh from the Hittites after more than half a century of abortive attempts. But as soon as Seti returned victorious to Egypt, the scheming rulers of Kadesh re-pledged their allegiance to the Hittites. Ramesses had returned to Syria to salvage two tarnished reputations: his father's and that of his previously great empire.

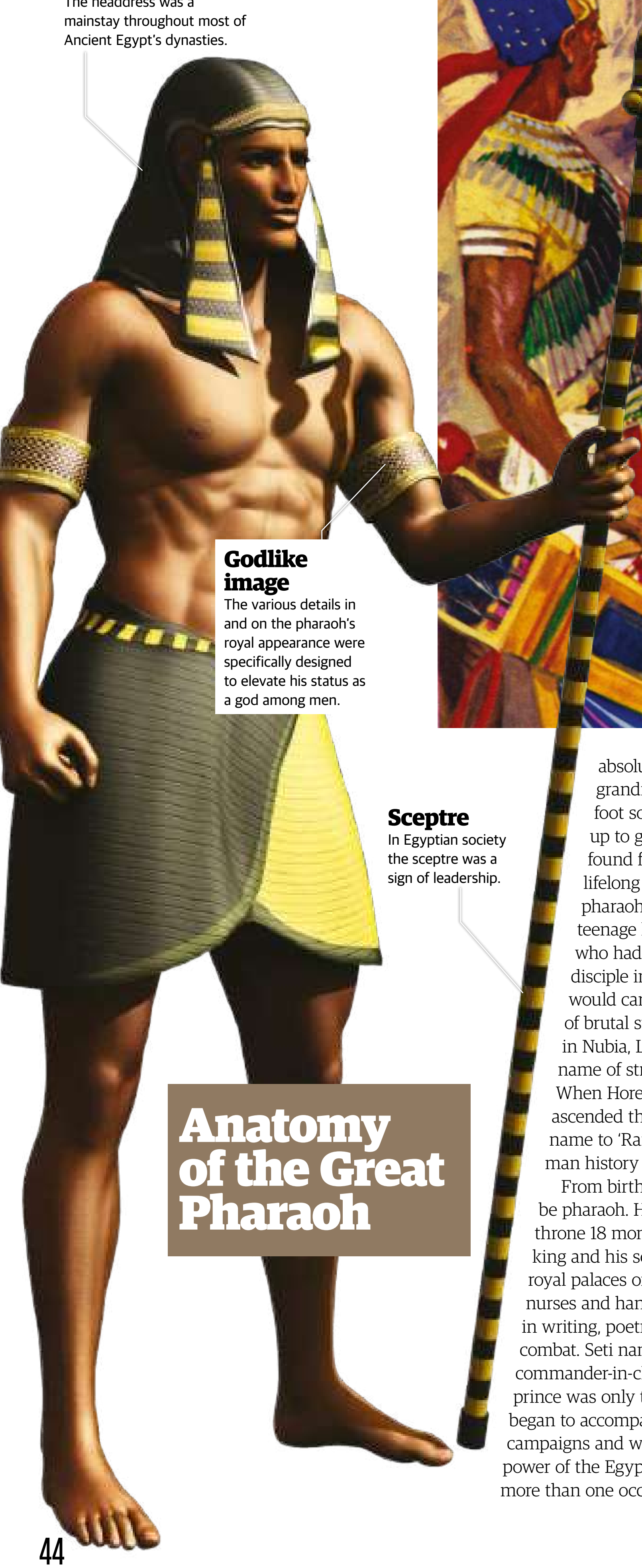
Ramesses and his army had been marching for a month. They departed from the pharaoh's royal residence along the eastern edge of the lush Nile Delta in April, cutting across the Sinai peninsula, following the curve of the Mediterranean coastline up through Canaan, past the strategic highland outpost of Meggido, into the fertile valleys of Lebanon and finally arriving in the forests outside Kadesh. The pharaoh's scouts fanned out to assess the enemy's preparations for battle. The locals painted a deceptively favourable picture. The Hittite king Muwatalli was so afraid of the great Ramesses and his legendary charioteers that the Hittite army was biding its time a hundred miles away.

Ramesses had been living the life of a god for so long that perhaps he believed a little too much in his own divine intimidation. While still an infant, his grandfather helped forge a revolutionary new dynasty in Egypt, one based on military might and



More construction was completed in Ramesses' reign than any other pharaoh

Anatomy of the Great Pharaoh



Nemes
The headdress was a mainstay throughout most of Ancient Egypt's dynasties.

Godlike image
The various details in and on the pharaoh's royal appearance were specifically designed to elevate his status as a god among men.

Sceptre
In Egyptian society the sceptre was a sign of leadership.

absolute royal authority. Ramesses' grandfather was born Paramessu, a foot soldier who had worked his way up to general in the Egyptian army. He found favour with Horemheb, another lifelong military man who had become pharaoh after the untimely death of the teenage king, Tutankhamun. Horemheb, who had no sons of his own, saw a disciple in Paramessu, someone who would carry on his aggressive campaign of brutal subjugation of rebellious tribes in Nubia, Libya and distant Syria in the name of strengthening the kingdom. When Horemheb died, Paramessu ascended the throne and changed his name to 'Ramessu beloved of Amun,' the man history knows as Ramesses I.

From birth, Ramesses II was groomed to be pharaoh. His father Seti I inherited the throne 18 months after Ramesses I became king and his son was raised in the lavish royal palaces of the pharaohs, waited upon by nurses and handmaids and trained by tutors in writing, poetry, art and, most importantly, combat. Seti named Ramesses the commander-in-chief of the army when the boy prince was only ten years old. At 14, Ramesses began to accompany his father on military campaigns and witnessed the overwhelming power of the Egyptian charioteers in combat on more than one occasion.

Now he was no longer a boy watching such campaigns but a man - a god - leading them. He was an hour's march from Kadesh and heartened to hear his enemies were rightfully trembling at his godly might. Ramesses ordered his troops to make camp. The royal tents were raised, the horses watered at a gentle tributary of the Orontes, and the soldiers circled the chariots as a half-hearted barricade against the unlikely possibility of attack. In reality, an attack was not only likely, it was imminent. It turned out the locals rounded up by the Egyptian scouts were planted by the Hittites. King Muwatalli and his large force of Hittite charioteers, archers and infantrymen were camped on the far side of Kadesh, hidden from view in the river valley. Luckily for Ramesses, a second wave of Egyptian scouts captured a pair of Hittite spies and beat the truth out of them. Muwatalli was planning an ambush. The target wasn't Ramesses' camp, but the legions of unsuspecting Egyptian infantrymen still marching. Ramesses dispatched his speediest messengers to warn the approaching troops, but it was too late. Thousands of Hittite charioteers descended upon the unprotected infantry. The Hittites rode three to a chariot: one driver, one archer and one spear-wielding warrior to cut down foot soldiers at close range. They wore ankle-length chain-mail armour, while the Egyptian infantry were naked to the curved blades of the Hittite scimitars. The heavy chariots ploughed through the ranks, littering the hillside with corpses and sending the survivors fleeing for Ramesses' camp.

What happened next says more about Ramesses II than perhaps any other event in his long reign as pharaoh. The Hittite forces pursued the decimated Egyptian army all the way to Ramesses' camp, crashing easily through the porous Egyptian defences and battling their way toward the royal tents themselves. Then, according to a first-hand account known as the *Poem of Pentaur*, Ramesses emerged from his tent and single-handedly faced down the enemy hordes: "Then His Majesty appeared in glory like his father Mont, he assumed the accoutrements of battle, and girded himself with his corslet, he was like Ba'al in his hour."

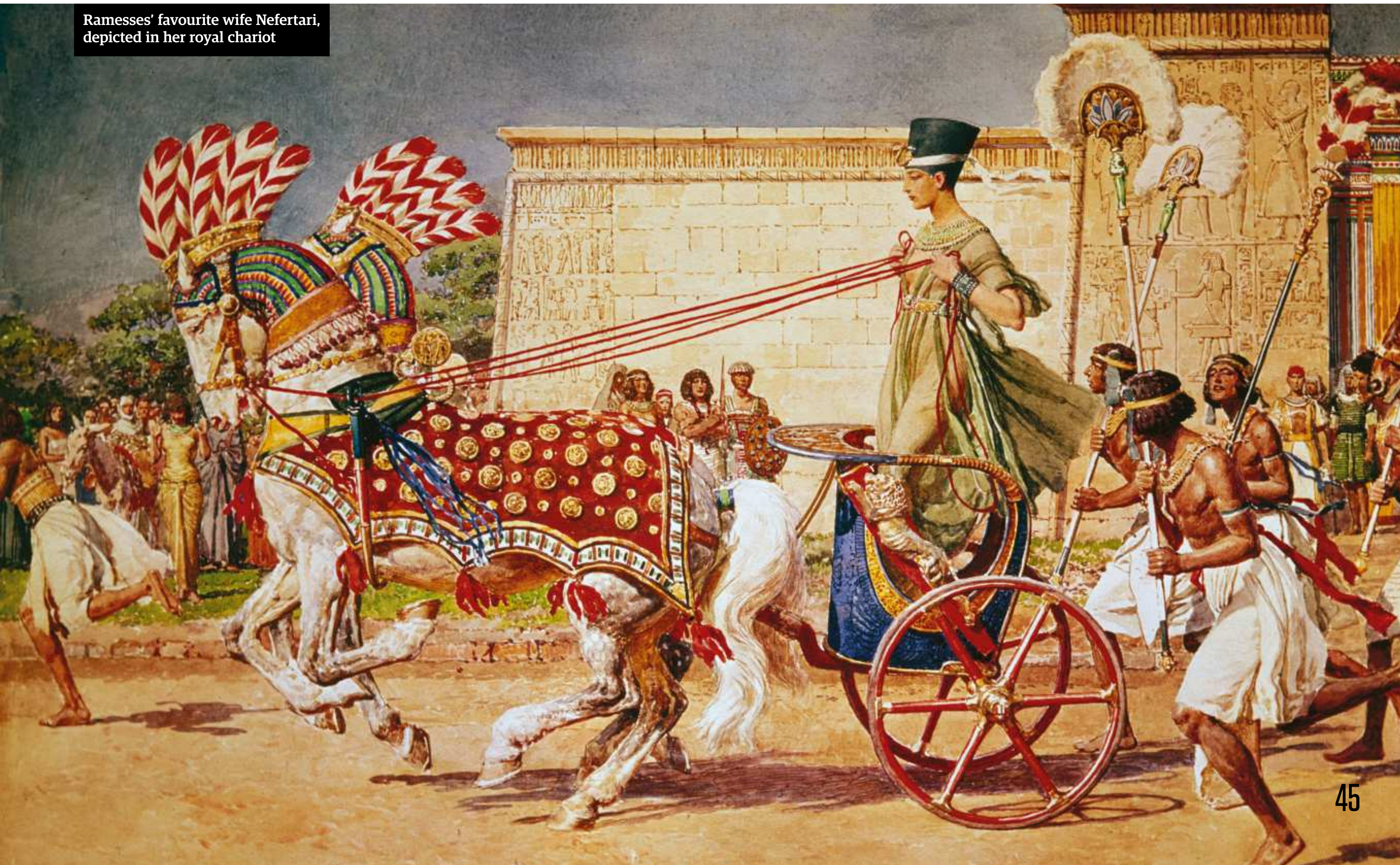
This was the moment that saw the birth of Ramesses the Great. The pharaoh took to his chariot and sliced through the Hittite ranks, cutting down the foe with his bow while rallying his troops to battle. The image of Ramesses on his golden chariot – his bow drawn back in deadly fury, his wheels rolling over the crushed bodies of his enemies – is carved into the walls of more Egyptian temples than any other story in the empire's 3,000-year history. If you believe the *Poem of Pentaur*, which adorns the walls of temples at Luxor, Karnak, Abu Simbel and more, then King Muwatalli was so cowed by Ramesses' superhuman strength that he immediately petitioned for surrender.

But is that really how the Battle of Kadesh went down? Do historians believe the account of the *Poem of Pentaur*, that a single man defeated an entire Hittite army? Hardly. Ramesses the Great, most Egyptologists now believe, deserves his title not for his heroics on the battlefield or his potency as a patriarch - he allegedly fathered well over 100 children - but for his flair for propaganda. Ramesses was, quite literally, the greatest image-maker of antiquity. Those visiting the ruins of the great Egyptian temples today are sure to find themselves in awe of a seated stone statue of Ramesses II guarding the gate, or a series of identical Ramesses sculptures supporting interior pillars. To everyday citizens staring up at his colossal and unblemished image, they would have no choice but to believe the statue's unspoken message: here stands your king, your ruler, your god. What's more, Ramesses ruled as pharaoh for a staggering 66 years. His reign spanned several lifetimes for the average Egyptian, reinforcing the idea that his rule really was eternal. The sheer length of his reign largely accounts for the grand scale of his construction projects and the ubiquity of his image. The ancient pharaoh Khufu was only king for 23 years and he built the Great Pyramid at Giza. Imagine what Ramesses was able to accomplish in 66.

Wives and offspring

A pharaoh is expected to provide suitable heirs to the throne, and Ramesses the Great approached this royal task with particular gusto. During the first ten years of his father Seti I's reign as pharaoh, a teenage Ramesses sired ten sons and at least as many daughters. Over the course of his long lifetime, Ramesses had six to eight principal wives, dozens of lesser wives and untold numbers of concubines. He is believed to have fathered an estimated 80 sons and 60 daughters, an impressive and somewhat excessive number, even by pharaoh standards. Ramesses had good reason for spreading his seed. Although he was born into a common family, Ramesses was intent on reinstating a pure dynastic bloodline. He gave his male heirs high-ranking administrative posts and trained each of his first 12 sons as possible successors, but none of them managed to outlive Ramesses. The thirteenth son, Merenptah, assumed the throne around 1214 BCE, but despite Ramesses' best efforts, the Ramessid Dynasty withered away in only 150 years.

> "The heavy chariots ploughed through the Egyptian ranks, littering the hillside with corpses"



Ramesses' favourite wife Nefertari, depicted in her royal chariot

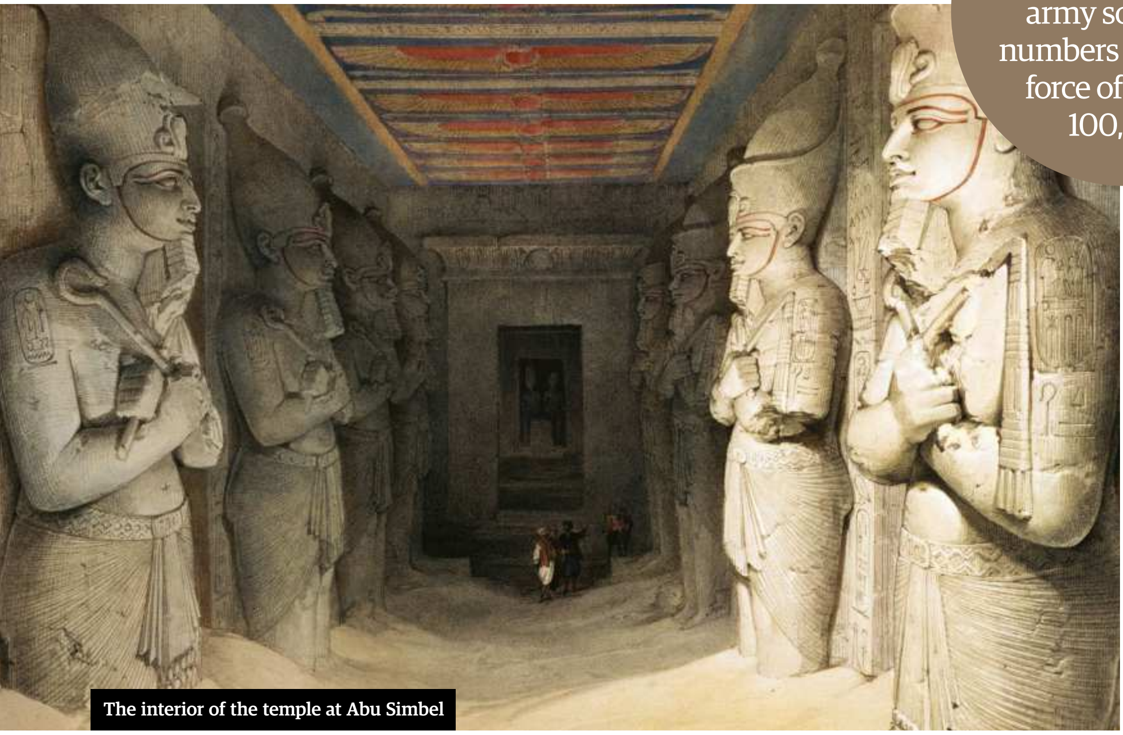
To understand the impressive scope of Ramesses' architectural vision, we only have to look to the royal city that bore his name, Per-Ramesses, or Piramesse. Located 120 kilometres (75 miles) from modern-day Cairo, Piramesse began as a humble summer palace built by Ramesses' father Seti I near the family's ancestral home on the eastern edge of the Nile Delta. Over the course of 18 years of construction and expansion, Piramesse became the third-largest religious centre of Egypt – next to Memphis and Thebes – and the political capital of the entire empire. Very little of Piramesse's grandeur remains today, but first-hand accounts describe a city of incomparable beauty and wealth. The Royal Quarter sat on a hill overlooking the Nile. Streets lined with royal residences and temples, ten square kilometres (four square miles) of towering columns, expansive courtyards and stairways encrusted with multicoloured tile work. The empire's wealthiest families, government officials and high priests lived in surrounding villas connected by canals and lush water gardens.

The farmland encircling the city was some of the most fertile and productive in the region, supplying Piramesse with ample grain, fruits and vegetables to feed its 30,000 citizens and fill the pharaoh's ample storehouses. Piramesse was also a striking, cosmopolitan capital. Ramesses likely chose the city's location for its proximity to the fortress at Sile, the traditional gateway to the eastern provinces of Palestine, Syria and the Asiatic empires beyond. Foreign diplomats, traders and migrant labourers arrived at the newly built capital in droves. In addition to the traditional Egyptian temples built to Seth and Amun, there were foreign cults dedicated to Ba'al, Anat and the Syrian goddess Astarte, whom the pharaoh adopted as the patron deity of his chariot horses. Piramesse may have been the 'Ramsses' of the Old Testament, where Hebrew slaves were put to work on the pharaoh's great storehouses. Whether Ramesses himself was indeed the wicked pharaoh of The Ten Commandments is another matter.

> Under Ramesses, the Ancient Egyptian army soared in numbers to reach a force of around 100,000

Importantly, the pharaohs of Ancient Egypt were more than mere figureheads: they served multiple roles as religious leaders, military generals and political rulers. The pharaoh's ultimate responsibility was to lead the empire toward *ma'at*, the ideal state of cosmic harmony, justice, order and peace. The Egyptians were skilled astronomers and charted the orderly and predictable movements of celestial bodies, each connected with a god or goddess. The goal of individual human beings and Egyptian society as a whole was to reflect the divine harmony of the heavens on Earth. The pharaoh, through his legal, religious and military roles, exerted the greatest influence of all.

In that sense, Ramesses was indeed a great pharaoh. The Egyptian empire enjoyed a prolonged period of stability and *ma'at* under his watch. For all of his posturing as a superhuman warrior who crushed his enemies by the hundreds of thousands, Ramesses was in fact a savvy military and political strategist. The historically dubious *Poem of Pentaur* is not the only document of Ramesses' greatness. Hanging in the hallways of the United Nations building in New York City is a clay replica of the world's first peace treaty, signed in 1269 BCE by the Hittite King Hattusillis III and Egypt's very


The interior of the temple at Abu Simbel

His glorious rule

1303 BCE

Born into greatness
Ramesses II didn't come from royal blood – his grandfather Ramesses I was a military hero who won the favour of the heirless Horemheb – but his birth coincided with Egypt's rise to increased military and political power.
1303 BCE

The boy who would be king
Ramesses II was a young boy when his father Seti I became pharaoh. Inside Seti I's impressive temple at Abdju, a colourful wall relief depicts the young Prince Ramesses holding a scroll upon which is written an unbroken royal lineage dating back to Menes, the first pharaoh who united Upper and Lower Egypt into a single kingdom. Egyptologists argue that Ramesses was likely only one of several possible successors to the throne, but the official history claims it as his sole birthright.
1300 BCE

Child-in-chief
At only ten years old, Ramesses was appointed as commander-in-chief of the army. Four years later, he accompanied Seti on several military campaigns in Libya and Palestine.
1299 BCE

Marriage to Nefertari
Nefertari was the first and best-known wife of Ramesses the Great. He married her while still a prince and she bore him four children before he ascended to the throne. Nefertari was from a prominent Egyptian family, the daughter of a high official and the sister of the mayor of Thebes. Ramesses' adoration of Nefertari is recorded in the statuary at the small temple at Abu Simbel and in works of elegiac poetry to his beloved first companion.
1293 BCE

Co-regent
Ramesses was officially named co-ruler of Egypt in Seti's eighth year as pharaoh. Around this time, Ramesses and his two young sons led military campaigns to quash rebellions in Nubia, including an impressive chariot raid.
1283 BCE

Crowned king
At the death of Seti I, Ramesses had firmly established himself as a capable military leader and the rightful heir to the Ramessid throne. Thus began his six-decade reign.
1279 BCE

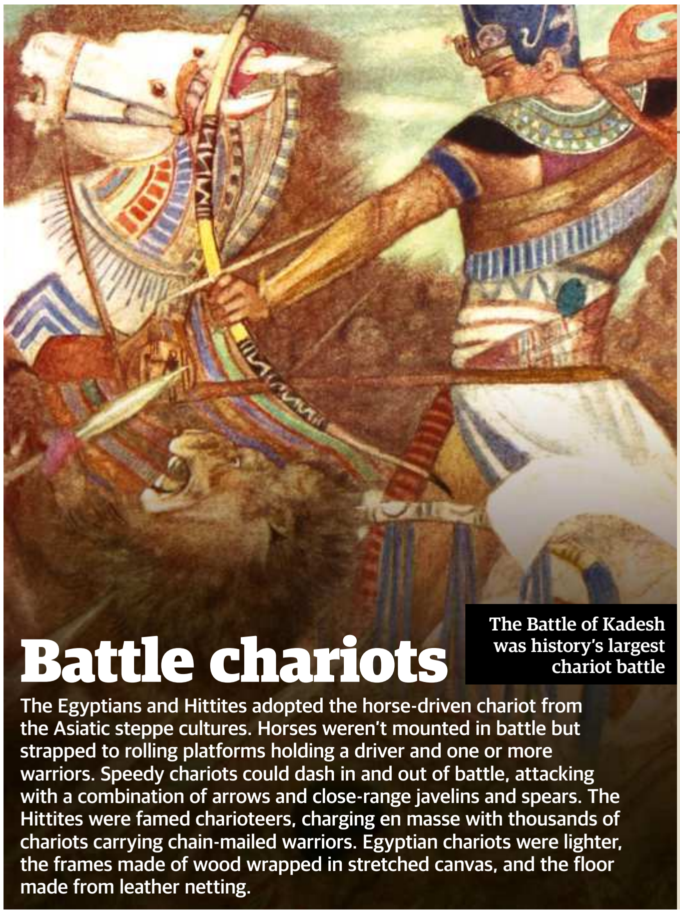
Construction boom
After Kadesh, Ramesses enjoyed a period of relative peace, during which he restored or constructed new temples at Thebes, Memphis, Karnak and Abu Simbel. Next to the pyramid makers, he's the most influential builder in Egyptian antiquity.
1275 BCE

'Victory' at Kadesh
Both the Hittites and the Egyptians laid claim to the Kingdom of Amurru, located on the borderlands between these two superpowers in the 13th century BCE. The conflict came to a head in the historic Battle of Kadesh, one of the largest and best-documented military clashes in antiquity. Both sides claimed victory, but Ramesses was the better propagandist, inscribing his *Poem of Pentaur* – "he is braver than hundreds of thousands combined… not speaking boastfully" – on the walls of five major Egyptian temples.
1274 BCE

Deification
Ramesses celebrated his first Sed or jubilee festival in the 30th year of his reign when he was approximately 60 years old. The ancient ceremony dates back to the earliest pharaohs and was meant to renew the king's authority and rejuvenate him physically and spiritually. Ramesses celebrated 13 seds, each one elevating his spiritual status higher and higher. In a world-view that already considered pharaohs to be born of the gods, Ramesses likely attained full deification in the eyes of his people while still on Earth.
1249 BCE

Everlasting king
Ramesses outlived his 12 oldest sons, reigning until the extraordinary age of 96. His mummy shows signs of severe and degenerative arthritis and a wicked case of smallpox, suggesting his last years were somewhat less than comfortable.
1213 BCE

1213 BCE

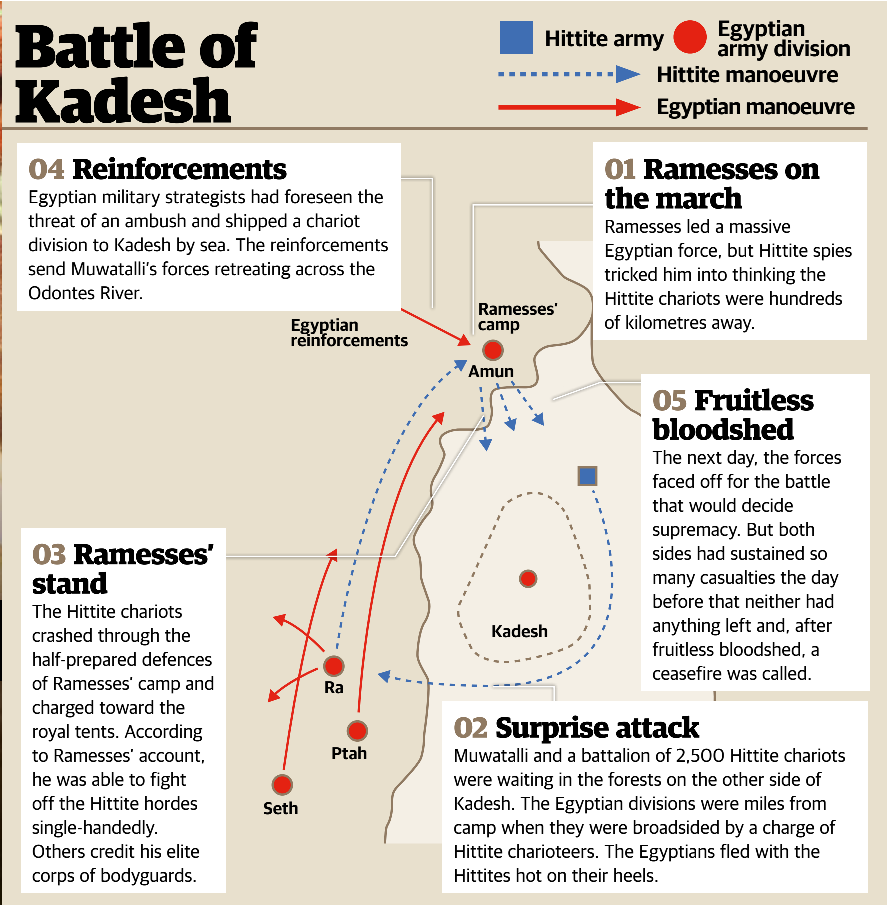


The Battle of Kadesh was history's largest chariot battle

Battle chariots

The Egyptians and Hittites adopted the horse-driven chariot from the Asiatic steppe cultures. Horses weren't mounted in battle but strapped to rolling platforms holding a driver and one or more warriors. Speedy chariots could dash in and out of battle, attacking with a combination of arrows and close-range javelins and spears. The Hittites were famed charioteers, charging en masse with thousands of chariots carrying chain-mailed warriors. Egyptian chariots were lighter, the frames made of wood wrapped in stretched canvas, and the floor made from leather netting.

Battle of Kadesh



01 Ramesses on the march

Ramesses led a massive Egyptian force, but Hittite spies tricked him into thinking the Hittite chariots were hundreds of kilometres away.

02 Surprise attack

Muwatalli and a battalion of 2,500 Hittite chariots were waiting in the forests on the other side of Kadesh. The Egyptian divisions were miles from camp when they were broadsided by a charge of Hittite charioteers. The Egyptians fled with the Hittites hot on their heels.

03 Ramesses' stand

The Hittite chariots crashed through the half-prepared defences of Ramesses' camp and charged toward the royal tents. According to Ramesses' account, he was able to fight off the Hittite hordes single-handedly. Others credit his elite corps of bodyguards.

04 Reinforcements

Egyptian military strategists had foreseen the threat of an ambush and shipped a chariot division to Kadesh by sea. The reinforcements send Muwatalli's forces retreating across the Odontes River.

05 Fruitless bloodshed

The next day, the forces faced off for the battle that would decide supremacy. But both sides had sustained so many casualties the day before that neither had anything left and, after fruitless bloodshed, a ceasefire was called.

> "They may have lost an enemy in the Hittites, but there were plenty of aggressors itching to take their place"

own Ramesses II. But was this the peace treaty the Hittites begged Ramesses to sign after his brutal show of strength during the Battle of Kadesh? Not at all. The true outcome of the Battle of Kadesh was a blood-soaked stalemate. Ramesses was saved from the Hittite chariot ambush by the arrival of reinforcements from the sea. The Egyptians pushed the Hittites back across the Orontes, but both sides lost so many men in the slaughter that both kings lost their appetite for the main event. Ramesses returned to his native Egypt with nothing to show for a months-long military campaign.

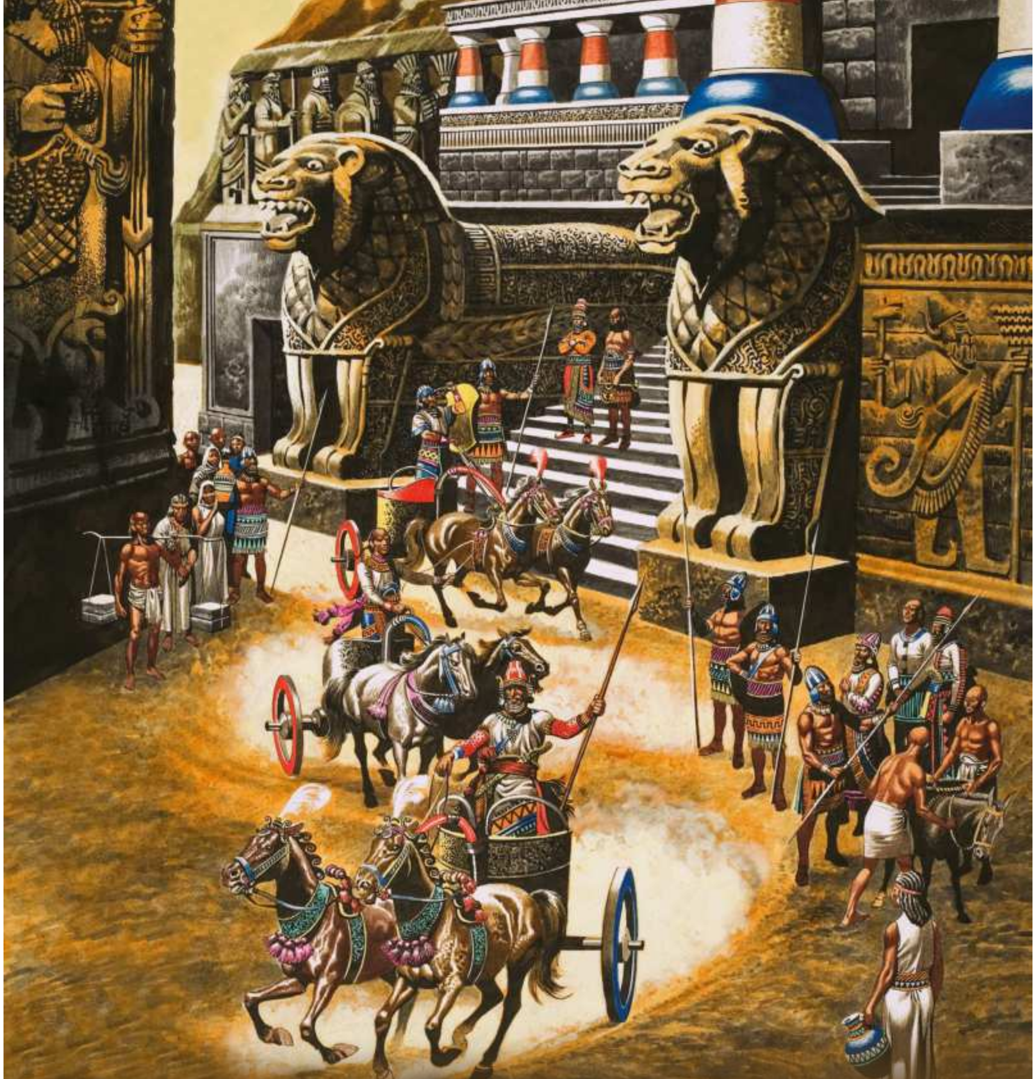
A decade later, and the pharaoh once again looked to prove his power by driving his forces to the north to test the strength of Amurru and Kadesh. This time, the Hittite King Muwatalli was dead and the Hittite empire was in the throes of a succession crisis. Ramesses easily took the city and claimed Amurru for Egypt. Expecting a full-scale reprisal by the Hittites, Ramesses was instead greeted by a cadre of Hittite diplomats. The new King Hattusillis had more to worry about than an Egyptian pharaoh with an old vendetta. The Assyrians to the east had amassed wealth and political might that threatened to crush any single empire that stood in its way. But together, Hattusillis proposed, the Hittites and Egyptians could defend their sovereignty.

The peace treaty hanging in the UN is a testament to Ramesses' long-term political vision. He could easily have viewed Hattusillis' offer as a sign of weakness and attempted to rout the Hittites once and for all. Instead, he saw an opportunity to drop a centuries-old feud that cost Egyptian lives and resources and engaged in an unprecedented act of diplomacy that would bring peace and stability to the kingdom for generations to come. To seal the newly brokered relationship between the Hittites and Egyptians, Ramesses accepted one of Hattusillis' daughters as his seventh principal wife.

Back in Piramesse, the royal capital, the new Hittite allies proved invaluable to the strengthening of the Egyptian armed forces. The capital city was more than a showcase for the prosperity of the empire. It also housed the pharaoh's largest armoury, a massive bronze-smelting factory whose blast furnace provided the swords, spears and arrowheads for Egypt's army. Shortly after the peace treaty was signed, Ramesses imported Hittite craftsmen to instruct the armoury workers in the secrets behind their impervious Hittite shields.

The Egyptians may have lost an enemy in the Hittites, but there were plenty of aggressors itching to take their place. Until the very end of his reign, Ramesses vigilantly defended Egypt's borders against threats from Libyan tribal leaders, Assyrian raiders and more. Ramesses' power was about much more than military might, though; he was a god among men. To understand his significance as a religious leader, it is important to understand how the Ancient Egyptians viewed the universe. From its earliest beginnings, Ancient Egyptian religious worship centred on a deeply held belief in the afterlife. In fact, the concept of *ma'at* originated with the ostrich-winged goddess Ma'at who 'weighs' the hearts of the deceased to determine their worth. The dozens of other gods and goddesses in the Egyptian pantheon – Ra, Osiris, Amun, Isis, Seth and many more – each played a role within a complex mythology of creation, death and rebirth. To the average Egyptian citizen in Ramesses' time, the gods were responsible for the orderly function of the universe and offered personal protection and guidance on the mysterious journey from life

> Ramesses' mummy shows he was short of stature at 5ft7 (170cm), had a hooked nose and had incurred many wounds and fractures



The warrior pharaoh

From the moment Ramesses' father became pharaoh, the young prince was groomed as an aggressive military leader, trained in chariotry and archery, the two deadliest weapons of antiquity. Even before he was crowned pharaoh, a 22-year-old Ramesses was already leading the Egyptian army on his own. Ramesses strengthened Egypt's empire by personally crushing rebellions in Galilee and the port city of Akko near the modern-day border between Israel and Lebanon. While the Hittites were embroiled in a succession crisis, Ramesses marched north and retook the disputed Amurru kingdom. In the past, this would have provoked all-out war, but both sides had grown concerned over the rise of the Assyrians to the east. The result was a pact with the Hittites that bolstered the borders of both empires. Near the end of his life, Ramesses built a series of strategic fortifications on the western flank of the Nile Delta to defend against the rising threat of the Libyans, whose would later be crushed by Ramesses' son Merenptah.

to the afterlife. Egyptians expressed their gratitude and devotion to the gods through the celebration of seasonal festivals and by bringing offerings to the gods' temples.

The pharaoh, of course, was not your average Egyptian. The royal cult was deserving of its own worship. Ramesses was the intermediary between the divine and the human. While living, pharaohs were the sons of Ra, the powerful Sun god. In the afterlife, pharaohs are the offspring of Osiris. In a competing cosmology, pharaohs are the living incarnation of Horus, the son of Isis. In any case, the implications are clear. The pharaoh is the earthly link to an unbroken line of divine authority, stretching from the very creation of the universe itself to the eternities of the afterlife.

The government of Ancient Egypt was a theocracy with the pharaoh as absolute monarch. But that doesn't mean that Ramesses personally oversaw each and every aspect of Egyptian civil life. His chief political officers were two viziers, one each for Upper and Lower Egypt. Serving as chief justices of the Egyptian courts, viziers conducted the tasks of collecting taxes, managing the grain reserves, settling territorial disputes and keeping careful records of rainfall and the Nile's water levels. Treasurers managed the finances of 'church' and state, as well as running the stone quarries that built national shrines. If an average Egyptian had a grievance, he would take it up with the local governors in charge of each of Egypt's 42 nomes – or states. Governors reported to the viziers, who met daily with the pharaoh for counsel.

During his long life, Ramesses renovated or constructed more temples than any pharaoh in all 30 Ancient Egyptian dynasties. He also placed his figure prominently inside each and every one of them, often on equal footing with the gods. At first, this appears to be an unparalleled act of hubris. But seen through the lens of the Egyptian religious mind, this spiritual self-promotion starts to make sense. If the highest goal of Egyptian civilisation is to achieve *ma'at* or divine harmony, then you need a supreme leader whose very will is in absolute harmony with the gods. Through his numerous construction projects, Ramesses proved his devotion to the gods while also nurturing his own thriving cult of personality.

Ramesses built some truly refined and subtle temples, especially his small addition to his father Seti I's monumental temple complex at Abydos. But refined and subtle was not in his nature. For starters, he liked to do things quickly. In traditional temple construction, all decorative motifs on the outside of a temple were hewn using incised relief, in which images and hieroglyphs are carved into the stone to accentuate the contrast of sun and shadow. In the darkened interiors of temples, however, artists used the more time-consuming bas-relief method, in which drawings and symbols are raised relative to the background. In the interest of time, Ramesses ordered all of his temples to be etched in incise relief inside and out. That's one reason why Ramesses built more temples than any king before or since.

Critics of Ramesses' theatrical and self-congratulatory construction style have irrefutable evidence in the two temples at Abu Simbel. Both structures are carved directly into the living rock on a sheer cliff overlooking a switchback curve in the Nubian Nile. Ramesses dropped all pretence of piety with the construction of the larger temple at Abu Simbel, which is appropriately called the Temple of Ramesses-beloved-of-Amun. Four monumental statues of Ramesses – each more than 21 metres (70 feet) tall – guard the entryway to the grand temple. Inside of it, each wall bares some reference to the great pharaoh Ramesses. Every pillar in the great hall is carved with Ramesses in the form of Osiris. Wall reliefs recount Ramesses' heroic military exploits. And deep in the Holy of Holies sit the three most revered creator gods of the Egyptian pantheon – Ptah, Amun and Ra – next to the deified image of Ramesses himself.

In his day, Ramesses was arguably the most powerful man to walk the Earth. He was the divinely ordained ruler of a thriving and cohesive civilisation that was centuries ahead of its time. As pharaoh of Egypt, he over-achieved in every category: crushing foreign enemies in battle, maintaining domestic order within his kingdom, building massive monuments to the gods throughout Egypt and preserving his own glorious legacy until his death.

As long as his stoic stone visage crowns the ruins of his magnificent kingdom, the greatness of Ramesses will continue to echo loudly through the ages.

> "The highest goal of Egyptian civilisation is to achieve ma'at, which is divine harmony"

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Ramesses' greatest constructions

Abu Simbel

1264 or 1244 BCE

These two temples along the banks of the Nile are outsized paeans to Ramesses and Nefertari. Both temples are carved into a sheer rock face. The smaller features two 12m (40ft) statues of Nefertari flanked by four even larger colossi of Ramesses. Standing guard outside the big temple are four goliath seated statues of Ramesses, each nearly 21m (70ft) tall. Deep inside the larger temple – which places Ramesses II on equal footing with the gods – a ray of sunlight pierces twice a year: once on Ramesses' birthday.

Per-Ramesses

(or Piramesse)

1280 BCE

Ramesses II built this sprawling complex along the northeastern Nile Delta as the royal seat of the Ramessid Dynasty. The site originally held a modest summer palace constructed by Ramesses' father, Seti I, but the great pharaoh gave it the supersize treatment, adding more than 10km^2 (4mi^2) of mansions, social halls, military barracks and an enormous, opulently tiled throne room, which was fittingly dedicated to the great pharaoh, Ramesses himself.

Ramesseum

1270 BCE

This immense structure near Thebes was Ramesses' official memorial temple. Nearly every wall of the 285km2 (11mi2) temple complex is scrawled with eulogies to his military victories, particularly the exaggerated depiction of his routing of the Hittites. In antiquity, dozens of imposing statues of Ramesses adorned each pillar. Today, the largest stone colossus lies broken on the ground. It is the inspiration for the English romantic poet Percy Bysshe Shelley's famous poem, Ozymandias.

Great Hall

1290-1224 BCE

Ramesses II completed the Great Hypostyle Hall at the Temple at Karnak during his reign, with decorations celebrating his power, much like everything else he had built. This 5,500m2 (60,000ft2) monument, which is comprised of 16 rows and 134 columns – most of these columns are actually over 15m (50ft) in height. Later pharaohs would add their own decorations. The Great Hall is considered one of the greatest feats of building ever achieved in the ancient world.

> "The pharaohs served multiple roles as religious leaders, military generals and political rulers"

Nefertiti: Behind the beauty

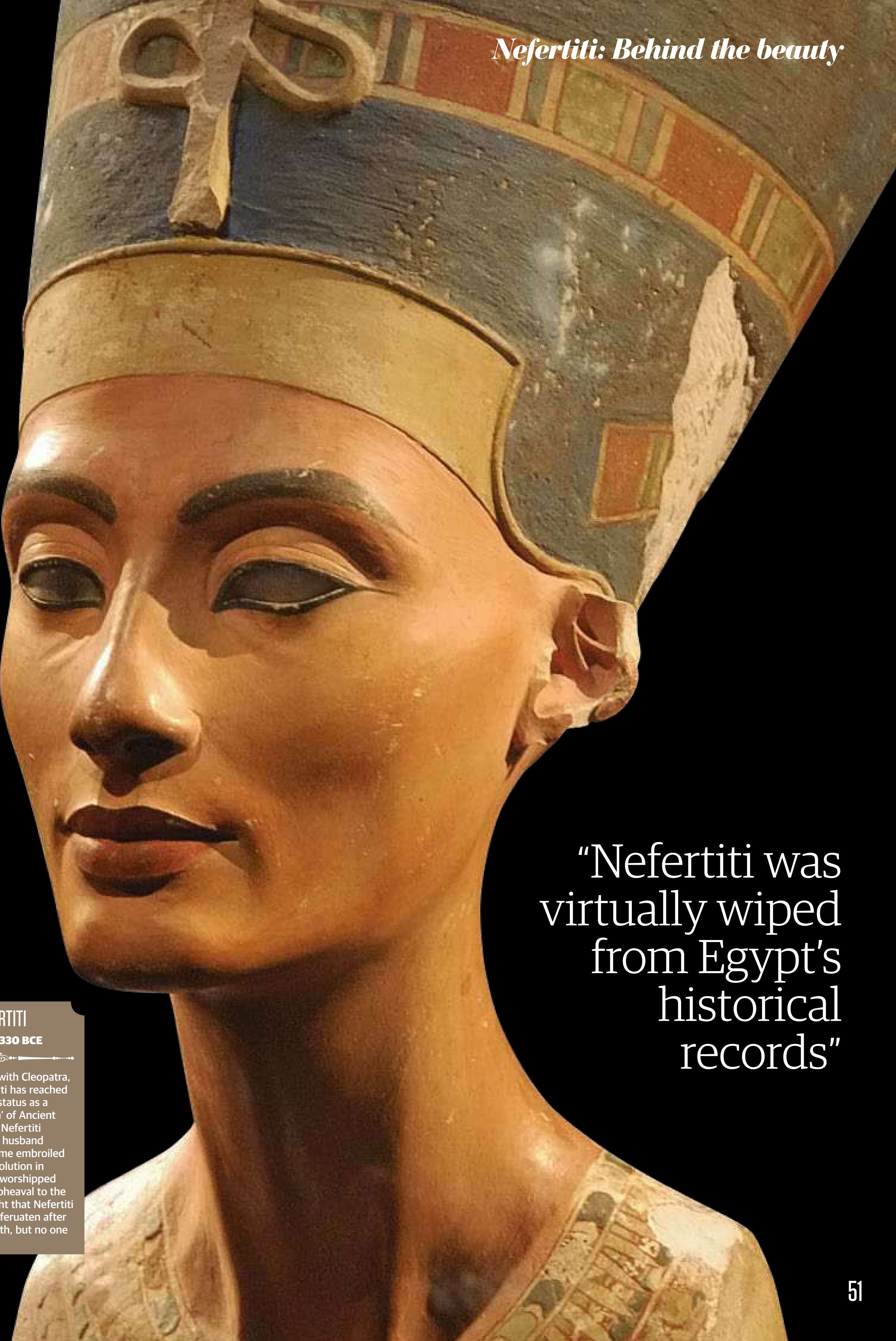
The chiselled features and perfect proportions of her limestone bust is recognised the world over. But who was the woman behind the masterpiece?

On 6 December 1912, an Egyptian workman digging along the banks of the River Nile unearthed one of the most precious treasures in the history of Egyptology. The man was one of many working on the excavation of an ancient sculptor's workshop, a dig overseen by German archaeologist Ludwig Borchardt. As he felt the knowing jolt of his pick against hard stone, he brushed away the earth to reveal the distinctive colours of ancient paintwork, and immediately called for his superior. Borchardt recalls: "The tools were put aside and the hands were now used," revealing the slender neck of a limestone bust buried upside down in the dirt. Digging deeper, they revealed a pair of full, red lips; a dramatic, sloping nose; almond eyes; and dark, arching eyebrows. Finally, they uncovered a huge cylindrical crown, one that had only been seen before in the few existing hieroglyphic depictions of one Ancient Egyptian: Queen Nefertiti.

Since its discovery, the bust has become one of the most visited and most iconic artefacts of the ancient kingdom. Yet it remains one of the most elusive. Following their reign, Nefertiti and her husband, the pharaoh Akhenaten, were virtually wiped from Egypt's historical records, their faces chiselled away from stone reliefs, their names scratched out from inscriptions. To add to the mystery, all references to Nefertiti vanished completely in about the 12th year of Akhenaten's reign, with no mention of her made thereafter. What had they done to instil such hatred in their people? And why did Nefertiti suddenly disappear? It is only now, more than 3,000 years after their deaths, that the answers are being discovered.

> The truth about Nefertiti's parentage is uncertain, but it is likely that she was born outside of the royal family

The truth about Nefertiti's parentage is uncertain, but it is likely she was born outside of the royal family: possibly the daughter of a court vizier, or a Mittani princess sent to unite two kingdoms. What we do know is that her face was one of timeless beauty – her name means 'the beautiful one has come' – and she would have been a desirable match for the young Egyptian prince, then known as Amenhotep. The pair were married in their mid-teens, had their first child shortly after, and ascended the throne around 1351 BCE. What is known of their early reign is sketchy, but archaeologists have deduced that throughout the 18th Dynasty, a cult of the god Amun had grown incredibly powerful, so much so that by the time Amenhotep was crowned, the cult's priests were almost as powerful as the pharaoh himself.



> "Nefertiti was virtually wiped from Egypt's historical records"

NEFERTITI

c. 1370-1330 BCE

Brief Bio

Along with Cleopatra, Nefertiti has reached iconic status as a 'Queen' of Ancient Egypt. Nefertiti and her pharaoh husband Akhenaten became embroiled in a religious revolution in which they only worshipped Aten, bringing upheaval to the realm. It's thought that Nefertiti ruled as Neferneferuaten after Akhenaten's death, but no one knows for sure.

But in the fifth year of Amenhotep's reign, something extraordinary happened. The pharaoh changed his name to Akhenaten, plundered and closed down the temples and threw the priests out of office. After thousands of years of polytheism, he and Nefertiti declared that there was now only one true god: Aten, the sun-disc. And the only way to reach this god was through the pharaoh himself. Akhenaten then led a mass exodus from the ancient capital of Thebes and set about building a new city in the middle of the desert, which he called 'Amarna'. This was to be the new centre of the Ancient Egyptian empire. The city was surrounded on three sides by inhospitable cliffs - a natural defence against enemies of the crown. The young pharaoh knew that his actions had not been popular, and the rumblings of unrest could be felt across the kingdom.

With this religious revolution also came a cultural one. Egyptian art, which before had been stiff and formal, became much more naturalistic. Depictions of Akhenaten took on a far more feminine shape, with rounded hips and a prominent chest. Scenes depicting the royal family became more intimate, showing the couple kissing and bouncing their children on their knees. But what is perhaps most extraordinary about the art of Amarna is the way Queen Nefertiti was portrayed. Reliefs and statues show Nefertiti chariot-racing, smiting enemies and even leading worship - roles that before had always been reserved for the pharaoh. During the first five years of their reign, she appeared in reliefs almost twice as often as her husband, and is often shown as being of equal size to him, suggesting that Nefertiti was far more powerful than the wives of the pharaohs before her.

However, it wasn't long before this period of rich culture and peace came to an abrupt end. Akhenaten had exhausted nearly all of his resources in building his new city and the nation was on the brink of bankruptcy. Large parts of the Egyptian empire had fallen under the control of the expanding Hittite kingdom, after the pharaoh had refused to listen to the advice of his generals to send military enforcements to the north. Not only was there an economic crisis, but the spiritual crisis that had been bubbling beneath

> After millennia of polytheism, they declared that there was one god, Aten, and the only way to reach Him was through the pharaoh

Egypt's female pharaohs

Most of the ancient rulers were men, but a few women became the empire's most powerful individuals

Sobekneferu

Sobekneferu was the first ruling queen. When her brother died without leaving a male heir, Sobekneferu ascended the throne. Very little else is known about her, but some believe that she is the Egyptian princess who rescued Moses from the reeds.

Nitocris

The Greek historian Herodotus listed Nitocris as the last pharaoh of the Sixth Dynasty. She is believed to have killed her brother's murderers by inviting them to a banquet in an underground chamber and flooding the room with water from the Nile.

Hatshepsut

Hatshepsut is considered one of Egypt's most successful pharaohs. She established several important trade routes, which led to a huge growth in the nation's wealth and also commissioned hundreds of building projects.

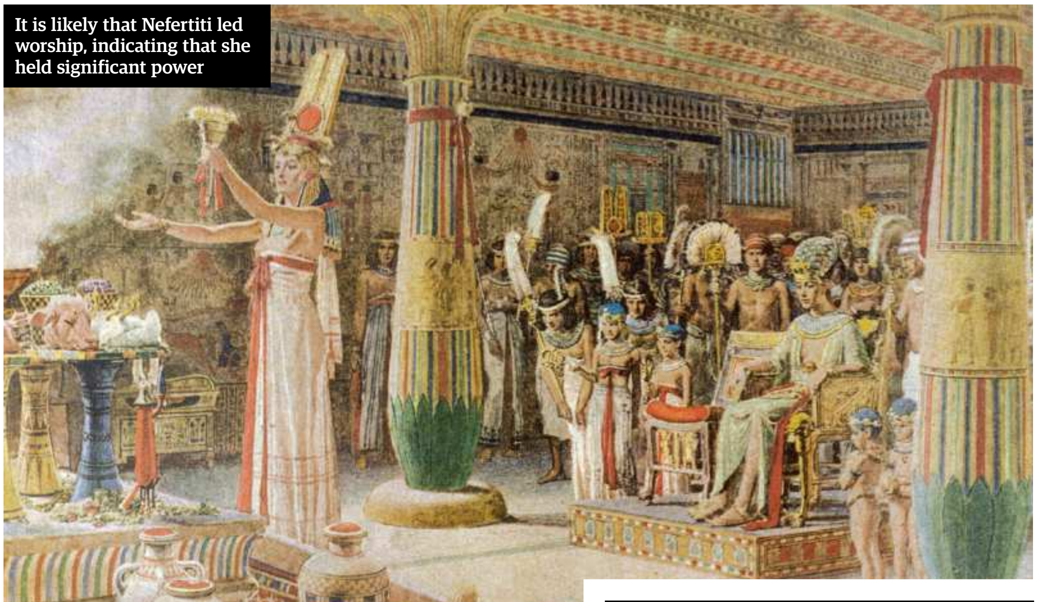
Twosret

This woman came to the throne after her young stepson, with whom she was co-regent, died. She ruled during a turbulent time and it is likely that she was overthrown during a civil war.

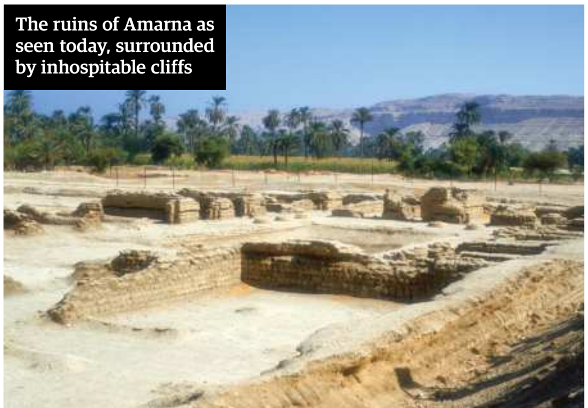
Cleopatra

Perhaps the most famous female pharaoh in Egypt's history, Cleopatra is infamous for her liaisons with several important Roman politicians, and is believed to have committed suicide after Mark Antony's death.

Queen Nefertiti depicted in an Amarna-era relief



It is likely that Nefertiti led worship, indicating that she held significant power



The ruins of Amarna as seen today, surrounded by inhospitable cliffs

A sculpture portraying Nefertiti and Akhenaten

Nefertiti: the first woman to be airbrushed?

CT scans of the famous bust have revealed that Nefertiti may not have been as beautiful as was first believed. Scientists have been able to analyse the layers of stucco below the outer one and have discovered that the original model had less prominent cheekbones, a slight bump on the ridge of the nose and even wrinkles around the mouth and cheeks. Just like modern airbrushing, it is likely that the queen's sculpture was altered to adhere to contemporary ideas of beauty.

A limestone relief depicting Nefertiti making offerings to the sun god, Aten

the surface was ready to explode. The pharaoh's new religion had destroyed all the ancient traditions that the Egyptians held so dear, and very few were prepared to let go of their trusted and much-loved gods. Revolts broke out across the nation, spurred on by the bitter priests and military officials who were desperate to take back the powers that had been so ruthlessly stolen from them. By the time of his death around 1334 BCE, Akhenaten's country was a broken one.

It is unlikely that these revolts came as a surprise, but what the Egyptians could never have predicted was the disappearance of Nefertiti in the 12th year of her husband's reign. Whereas before her face had adorned the walls of temples and palaces, from the year 1339 BCE, all records and depictions of her stopped being made. What had happened to the queen – the woman the pharaoh seemed to worship? Some historians believe that she fell out of favour, perhaps because she was unable to bear Akhenaten the son he so desperately wanted. Others believe she died, a victim, perhaps, of the flu epidemic that was plaguing the country, or even at the hands of a jealous member of Akhenaten's harem.

But one piece of art, known as the Coregency Stela, suggests that Nefertiti didn't disappear, rather that she became someone else. In the piece, Nefertiti and Akhenaten are depicted with one of their daughters, but Nefertiti's name has been chiselled out and replaced with a different one – 'Ankhkheperure Neferneferuaten'. This was the name of Akenhaten's co-regent, who was crowned around the same time that Nefertiti's name disappeared from history. Could Nefertiti have taken on a new name and become her husband's co-regent? And if so, could this explain the identity of the mysterious pharaoh who came to power after the death of Akhenaten?

These are questions that we will likely never know the answer to, as in the years following his death, nearly all evidence of Akhenaten's reign was destroyed by the people he had so deeply wounded. Deemed a heretic, his name was scratched from the walls of the temples and depictions of the beautiful Nefertiti mutilated with chisels. But Akhenaten's legacy lived on in the form of a son, the identity of whose mother is still contested. The boy named Tutankhaten, meaning 'the living image of Aten', succeeded to the throne when he was about nine years old. Despite his tender age, he immediately set about reversing the changes made during his father's reign.

Amarna was abandoned and fell into ruin, the old gods were brought back from the dead and the priests of Amun were reinstated. But there remained one remnant of the old religion, one that couldn't be destroyed with a hammer or chisel. The remnant was the boy's name. Just like his father and stepmother before him, Tutankhaten gave himself a new name, a name that would honour the glory of Amun and the gods that his people loved so dearly. It was one that thousands of years later would be pasted across newsstands and history books, and known to people in every corner of the globe. That name was Tutankhamun.

Images of the royal family were more intimate then ever seen before

The search for Nefertiti

Discovered in 1898, could the female mummy of tomb KV35 belong to the famous Egyptian queen?

Since the discovery of Nefertiti's bust, archaeologists have scoured the Egyptian desert in search of her resting place. Although no formal identification has been made, one Egyptologist believes she has found Nefertiti's mummy in the tomb of Amenhotep II, the great grandfather of Akhenaten.

The mummy, known as 'The Younger Lady', was discovered buried alongside Queen Tiye, Akhenaten's mother, and a young boy, possibly his brother, back in 1898. The discoverer, Victor Loret, originally believed the mummy to be male, but a closer inspection by anatomist Dr Grafton Elliot Smith Tests concluded that it was a woman. The room containing the mummies was then sealed, and had been all but forgotten until 1993, when Egyptologist Joann Fletcher stumbled across one unlikely piece of evidence.

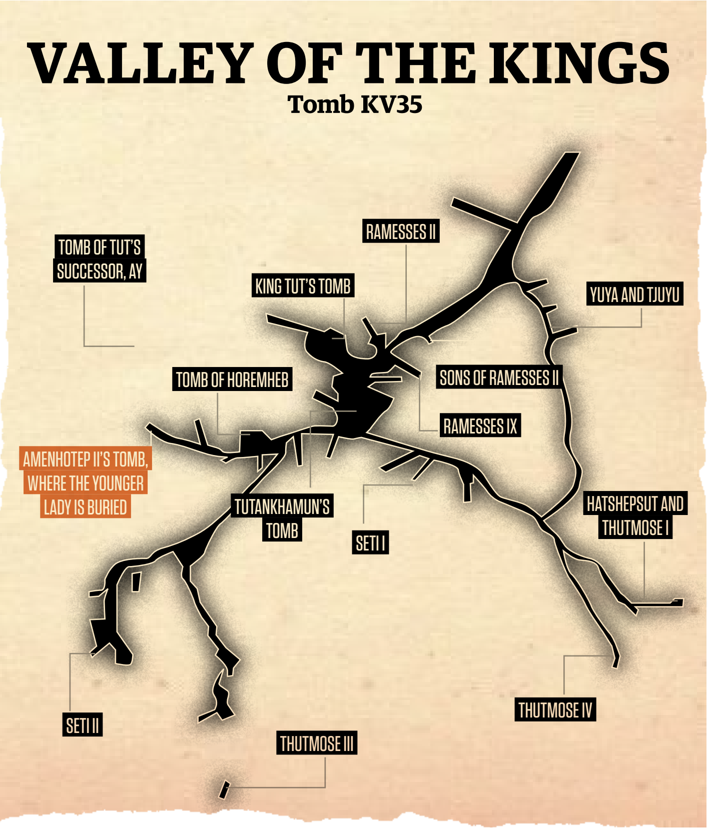
Joann, who at the time was completing a PhD in Ancient Egyptian hair, came across a wig in the Cairo Museum that was in the Nubian style - a style favoured by royal women in Akhenaten's court, and particularly by Nefertiti. The wig had been discovered in tomb KV35 - the resting place of the 18th Dynasty pharaoh, Amenhotep II. Intrigued as to the ownership of the wig, Joann requested for the sealed chamber to be re-opened.

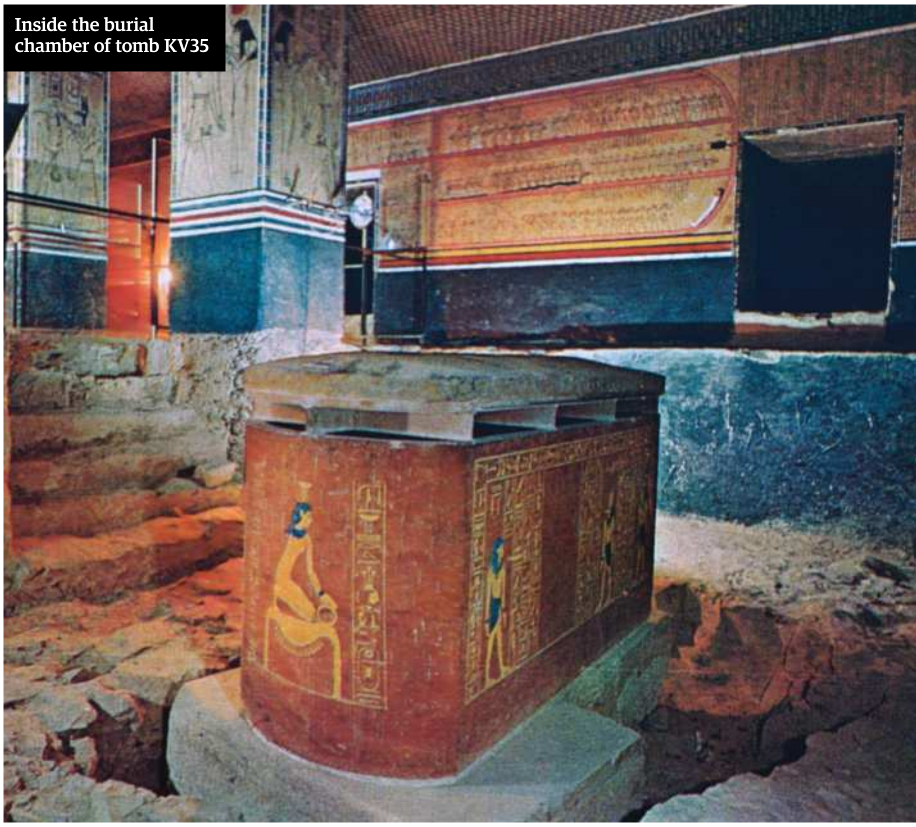
What she discovered within the room was curious to say the least. The only mummy to whom the wig could viably belong was that of The Younger Lady, whose head had been shaved. This lack of hair emphasised a remarkably long neck - one all too familiar to an Egyptologist who had dedicated years to the study of Egypt's Amarna period. Further inspections led to the conclusion that this mummy was indeed a woman, and one who had died in her twenties or thirties - an age that, should she have survived her husband as the evidence has suggested, would fit that of Nefertiti.

But what was perhaps most intriguing about The Younger Lady was the damage that had been inflicted upon the mummy shortly after its burial. The lower half of the mummy's face was violently smashed in, which would have been a punishment worse than death. By destroying the mummy's mouth, the spirit of the dead would be unable to speak its name at the doors of the afterlife, condemning it to an eternity of damnation. The mummy's right arm had also been broken off, and what appeared to be its detached and outstretched limb was placed beside it. But closer inspection revealed that this bodiless arm belonged to someone else entirely - it had been mummified in a different way and the measurements did not match those of The Younger Lady. In what was to become an astonishing discovery, another arm was found hidden beneath the wrappings of Queen Tiye's mummy. Unlike the first arm, this arm was bent at the elbow and its hand was clasped, indicating that it had been holding a sceptre, the sign of a pharaoh. It fit the Younger Lady perfectly. Whoever had broken off this arm had clearly wanted to destroy all evidence of this woman's power, and Nefertiti's heresy would have been an understandable motivation for the desecration of a grave.

The claim that The Younger Lady is indeed Nefertiti is one that has been met with strong contention, and is a claim that may never be resolved. But it's hard to deny that the evidence all points to one an exciting potential conclusion.

A wall painting showing Akhenaten and Nefertiti with their young family



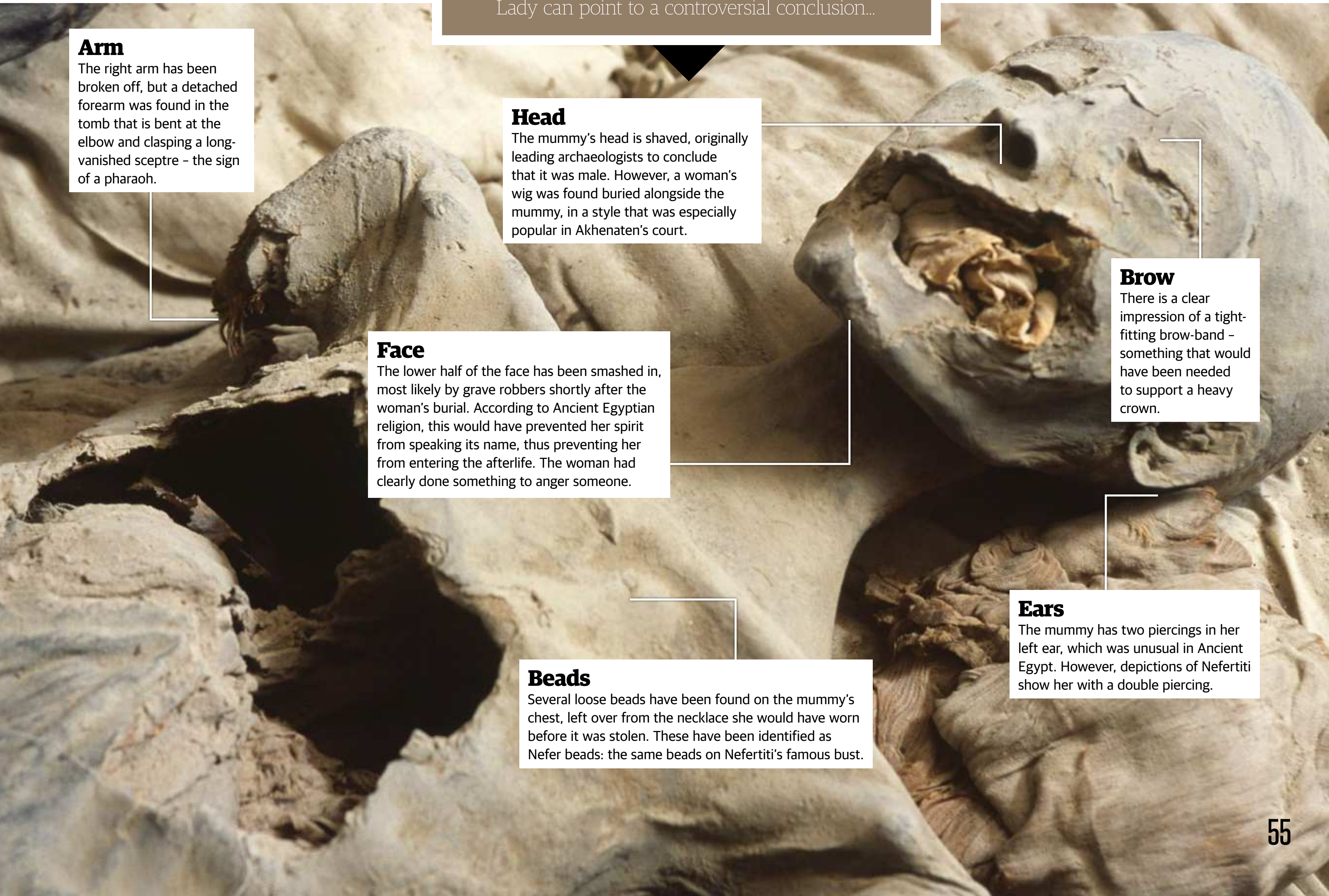


Inside the burial chamber of tomb KV35

Joann Fletcher examining the mummy of The Younger Lady

Clues to the mystery

The physical evidence from The Younger Lady can point to a controversial conclusion...



Arm

The right arm has been broken off, but a detached forearm was found in the tomb that is bent at the elbow and clasping a long-vanished sceptre – the sign of a pharaoh.

Head

The mummy's head is shaved, originally leading archaeologists to conclude that it was male. However, a woman's wig was found buried alongside the mummy, in a style that was especially popular in Akhenaten's court.

Brow

There is a clear impression of a tight-fitting brow-band – something that would have been needed to support a heavy crown.

Face

The lower half of the face has been smashed in, most likely by grave robbers shortly after the woman's burial. According to Ancient Egyptian religion, this would have prevented her spirit from speaking its name, thus preventing her from entering the afterlife. The woman had clearly done something to anger someone.

Ears

The mummy has two piercings in her left ear, which was unusual in Ancient Egypt. However, depictions of Nefertiti show her with a double piercing.

Beads

Several loose beads have been found on the mummy's chest, left over from the necklace she would have worn before it was stolen. These have been identified as Nefer beads: the same beads on Nefertiti's famous bust.

Peace & prosperity of Amenhotep III

In a time of relative peace, the son of Thutmose IV led Egypt to a zenith of political and economic power. His name was Amenhotep III

When Amenhotep III, the ninth pharaoh of the 18th Dynasty, came to power he inherited a realm in its prime. The military successes instigated by his ancestor (and progenitor of the dynasty) Ahmose I, 150 years before, had kick-started the nation into an age of transformation. Nurtured by the rulers that followed, Egypt had cast aside the reclusive and insular policies of old and expanded the kingdom by trade and sheer economic might. The country had entered a new golden age and the politically savvy Amenhotep III would preserve that prosperity not with blades and blood, but with marriage and diplomacy.

> Amenhotep III was a keen hunter and steles depicting his exploits hunting lions were distributed throughout the kingdom

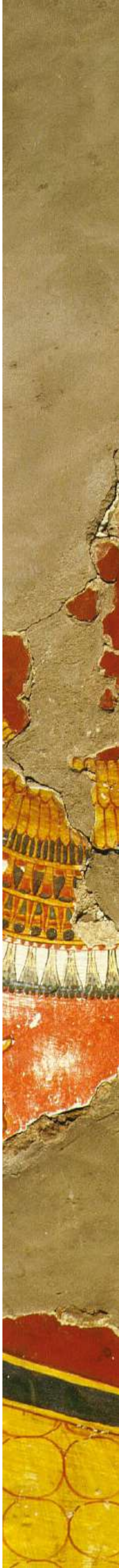
The New Kingdom, one of the distinct eras when Ancient Egypt enjoyed a peak as a civilisation, was a stark contrast to the Second Intermediate Period that had preceded it. Political in-fighting, economic despondency and an insular shunning of the outside world left Egypt weak and vulnerable – so it was no surprise when half the country was invaded and subsequently occupied by Hyksos raiders. Having grown strong over time, these settlers established a new royal dynasty to rival the weakened line residing in Thebes. For over 100 years, Egypt had therefore been divided between the two centres of influence. That was until warrior king Ahmose I flexed his muscles and displayed his might, taking up the mantle laid down by his family and banishing the Semitic usurpers back over the border.

And so came a new era for the Egyptian people – the seeds of the New Kingdom had been sown, and over the next 150 years, the kings that followed moulded the nation through military campaigns and the fortification of vital trade routes and agreements. The Nubians to the south and the remainder of the Hyksos to the north had learned to fear the wrath of the pharaohs once again.

When Amenhotep III was born, sometime between 1386 BCE and 1388 BCE, he found himself with few cares. The son of Thutmose IV and Mutemwiya, the young prince didn't begin his life with a secure hold on the throne, either.

His mother was considered a 'minor wife' and was often overshadowed by the more powerful and favoured Queen Nefertari and later Queen Iaret. It's not known if Nefertari or Iaret had legitimate children of their own with the king, but it seems unlikely since the Theban prince inherited the throne around 1391 BCE.

Amenhotep was between six and 12 when he was made king of Egypt, and within two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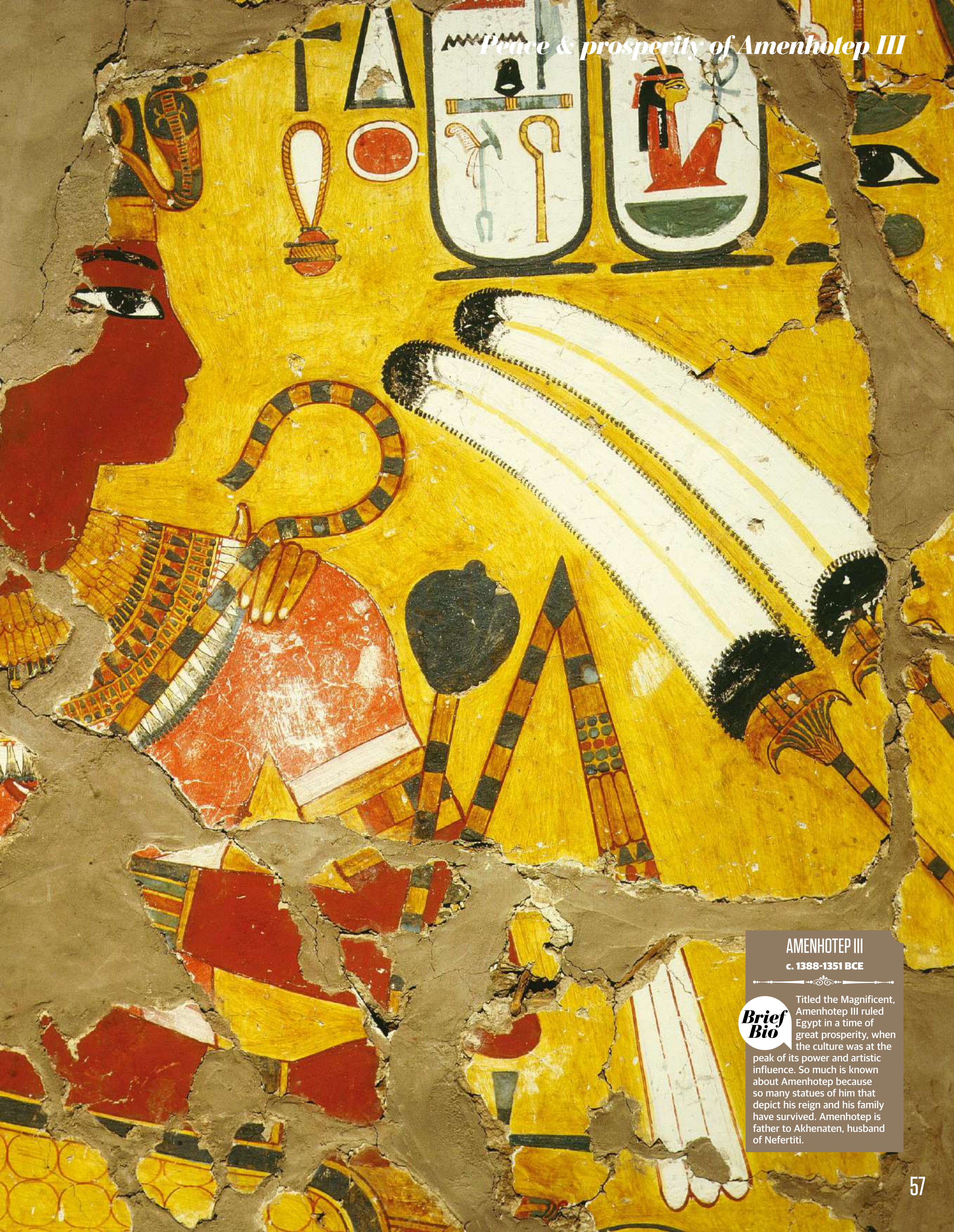
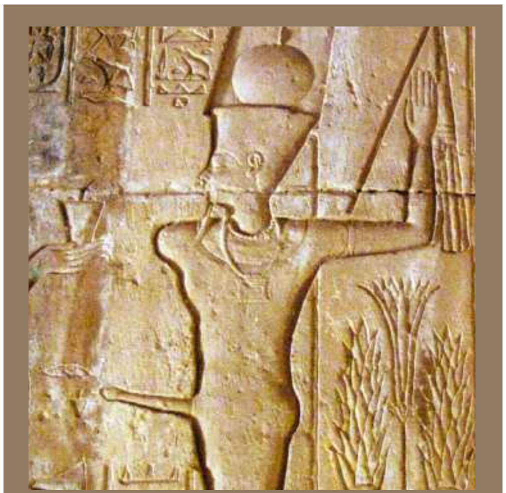


AMENHOTEP III

c. 1388-1351 BCE

Brief Bio

Titled the Magnificent, Amenhotep III ruled Egypt in a time of great prosperity, when the culture was at the peak of its power and artistic influence. So much is known about Amenhotep because so many statues of him that depict his reign and his family have survived. Amenhotep is father to Akhenaten, husband of Nefertiti.



Amun vs Aten

As powerful as King Amenhotep III was, another power was growing in the realm, one that had been there long before he ascended to the throne: the church of Amun. Ancient Egypt was a polytheistic kingdom, worshipping multiple gods, much like the Norse or the Greeks. However, it wasn't uncommon for one god or goddess to rise in prominence if favoured by a particular monarch – the Thebans of the 11th Dynasty had chosen Amun, and his prominence had risen even higher following the expulsion of the Hyksos. The church had grown with him and now controlled as much land and wealth as the king, often attempting to influence politics within Amenhotep III's court.

As a result, the king began paying tribute to the minor god Aten in an attempt to draw influence away from the bothersome church. The following Amenhotep IV hoped to garner around his new favoured deity never reached the height he desired during his reign, but the shadow of the church of Amun would have a profound effect on prince Amenhotep and ultimately lead to one of the biggest theological upheavals in Egyptian history.

years he was already married. His first wife, Tiye, would forever remain his favourite and she would eventually bear him three sons: Grand Prince Thutmose (who would train as a priest but ultimately predecease his father before he could assume the throne), Amenhotep (who would go on to stylise himself as the religious zealot Akhenaten upon inheriting the throne as Amenhotep IV) and Smenkhkare (who would go on to briefly succeed his brother on the throne years later). The royal couple also welcomed four daughters into the world: Iset, Sitamun, Nebetah and Henuttaneb.

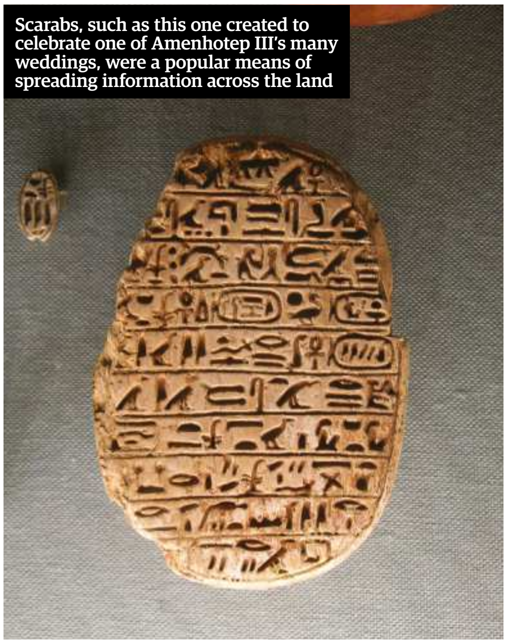
Amenhotep went on to amass a number of wives, as was the custom for pharaohs throughout Ancient Egyptian history. Many were the products of political negotiations, but two were far closer to home. During the last decade of his reign, Amenhotep III elevated two of his own daughters – Iset and Sitamun – to the status of 'Royal Wives'. By modern standards, such unions appear horrifying, but for the royal families of the Nile it was common practice. Kings were often advised by courtiers and priests to improve their chances of having a son succeed them by ensuring they married only royal blood. Incest was far from a taboo for the Ancient Egyptians – even the gods and goddesses of the Egyptian pantheon were known for their incestuous bonds (such as the goddess Hathor who was both mother and wife to Ra).

With no wars or great military campaigns to his name, the reign of Amenhotep III might sound a little uneventful; however, just because he wasn't having to constantly look to his borders didn't mean the new king lived a quiet life. From his earliest years, Amenhotep III dreamed of recapturing the abject beauty and aesthetic pomp of the previous golden age, the Old Kingdom.

And so began a reign typified by opulence; it was a hyperactive three decades of monumental construction. Over 250 statues, temples, buildings and steles (clay tablets usually created to promote the successes and absolute sovereignty of a monarch) were constructed over his time as king.

Amenhotep III commissioned a new pleasure palace at Malkata (located on the West Bank of the Nile, opposite Thebes) and a staggering 600 statues of the goddess Sekhmet at the Temple of Mut at Karnak. He even had two giant, 21m (70ft) tall enthroned statues of himself and queen Tiye in Thebes as part of the Necropolis. Sadly, time hasn't been kind to many of Amenhotep's monumental creations, but the Colossi of Memnon, located in modern-day Luxor, remain as a dual testament to the grand nature of the 18th Dynasty king's vision of a beautified Egypt.

The pharaoh's building spree didn't just extend to the creation of tributes either – Amenhotep III took a far more hands-on approach when it came to interacting with the subjects of his kingdom. Steles, describing his achievements as a ruler and Egypt's position at the centre of culture and civilisation, were sent to every corner of the land. Unlike many of his fellow kings, Amenhotep III seemed a savvy politician at heart, who understood the importance of image and legacy. These steles



Scarabs, such as this one created to celebrate one of Amenhotep III's many weddings, were a popular means of spreading information across the land

Defining moment

Amenhotep becomes king

1388-1386 BCE

Following the deaths of his father Thutmose IV, the six- to 12-year-old prince inherits the throne during a ceremony in the capital, Thebes. The young pharaoh assumes a kingdom at the height of its prosperity, influence and military prowess. The wars and military excursions conducted by his forebears have moulded the nation into one of the most formidable powers in the world, so Egypt enjoys an unrivalled era of peace.

Defining moment

Second son is born

1380 BC

Amenhotep (later Amenhotep IV/Akhenaten) is born. His older brother, great prince Thutmose, dies while serving as a priest in the church of Amun. While his father would continue the relative peace of the New Kingdom era, Amenhotep IV would end up reversing much of his father's efforts to solidify Egypt's political and economic prominence. After witnessing the rise and negative influence of the church of Amun, Amenhotep IV (assuming the new title Akhenaten) drains the treasury, neglects his people and forces the nation to worship a single god.

Timeline

1411 BCE

- **Amenhotep is born**
  The son of Thutmose IV and one of his favoured wives Mutemwiya, Amenhotep is the second of two sons to be born into the royal family.

1387 BCE

- **Limestone quarries opened**
  One of the first actions Amenhotep III makes as king is to open a number of limestone quarries in Tura in preparation for his monument-building spree.

1386 BCE

- **Amenhotep III marries Queen Tiye**
  The king ends up marrying a number of women (around nine, including two of his own daughters), but none of them shares the popularity and influence of his first, Tiye.

1383 BCE

- **Brief Nubian campaign**
  Amenhotep III conducts his first and only military excursion around his fifth year of regnal rule. It's not considered to be particularly important and more a symbolic flexing of Egypt's might.

The mortuary temple built by Amenhotep III is mostly a ruin now. Among the rubble only the impressive Colossi of Memnon have survived

were very much the propaganda of the age, but the king ensured these boasts were justified; roads were relaid across the kingdom, with new temples and buildings repaired or rebuilt wherever it was needed. Amenhotep III wanted the whole kingdom to reflect on its hard-fought wealth and status, and it showed.

Events during this period have also revealed an equality between Amenhotep III and Queen Tiye. The king was so passionate about his building projects, he often focused all his attention on them - this left much of his political responsibilities to his wife. While these absences weren't reflective of his entire reign, it still gave the queen the opportunity to prove her political prowess in court and affairs of state. She became a popular head of state and is often portrayed as equal height in pictures of them together - a startling representation of the equality shared between the royal couple.

Amenhotep III also paid considerable attention to diplomacy during his reign. Instead of waging wars on the battlefield, the 18th Dynasty monarch used the power of political engagements to maintain Egypt's relative stability. He built relations with a number of kingdoms, most notably with the kings of Mitanni (modern-day northern Syria) Shuttarna II and his son Tushratta. In fact, his relations were so strong, he even arranged to marry not one, but two of Shutterna II's princesses. Of course, it should be noted that pharaohs often took multiple wives, usually favouring one or two by elevating them to the status of 'Great Royal Wife'.

Amenhotep III was no meek negotiator when it came to the pressure of diplomacy; many leaders and monarchs wrote to the king offering tribute in exchange for the hand of one of his daughters in marriage. One such request from the Babylonian king Kadashman-Enlil during the final years of Amenhotep III's reign was outright rejected by the king with the words: "For time immemorial, no daughter of the king of Egy[pt] is given to anyone." This exchange and many more were recorded on a series of clay tablets known as the *Amarna Letters*, and their contents have proved invaluable in understanding the geopolitical landscape in an age where Egypt was in ascendancy.

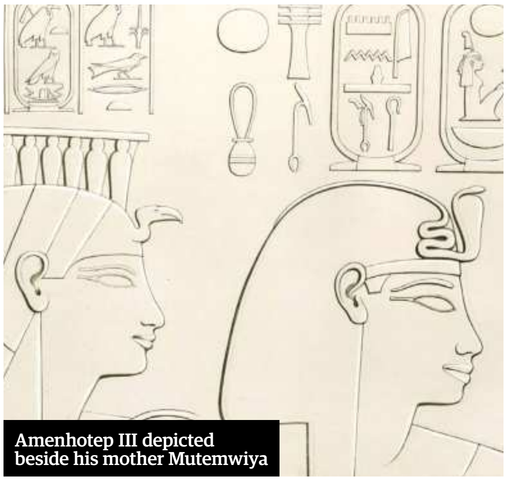
Amenhotep died around 1353 BCE, possibly from a variety of ailments including arthritis, severe dental problems and perhaps even obesity. He was buried in the Western Valley of the Valley of the Kings. When he passed the throne to his son, Amenhotep IV, Amenhotep III left behind a kingdom at the height of its power and influence. However, it was a realm united to an equally prominent church, and one that would be shaken to its core with the revolution that followed.

> By his death, Egypt's sphere of influence stretched from the Euphrates to the Fourth Cataract of the Nile

Queen Tiye: Ruling as two

Of all the individuals Amenhotep III met in his life, none had more of an impact than his first wife, Tiye. Upon their marriage in around 1390-1388 BCE, Amenhotep III elevated his new queen to the title of Grand Royal Wife. This new title essentially preserved her power in the royal household among the many wives the king would collect over his lifetime. By the same token, it also made her the most powerful woman at court. Such a position has often been noted as belonging to a king's mother, but Amenhotep III's mother never claimed the title during her time as queen, leaving herself at the mercy of the new queen.

In Ancient Egypt, it was through women that the royal lineage was carried, so the queen enjoyed a much revered status at court. Amenhotep III was the quintessential king as a young man, bold and with a love of sports and hunting, but he always turned to his Great Royal Wife for guidance. She was his most trusted advisor and confidante; as such, she wielded a great deal of power. So defined was her status that foreign rulers were often happy to negotiate through her and she was the first queen of Egypt to have her name officially recorded on new acts of state.



Amenhotep III depicted beside his mother Mutemwiya

Defining moment

Amenhotep III dies

1353 BCE

After over 30 years of peaceful rule, the Egyptian monarch passes away. Studies of his remains show he likely suffered from severe arthritis and decaying teeth. Both would have caused him considerable pain and likely added to his reportedly frail appearance in those final years of his rule. Some historians have presented the theory that the king shared his rule in co-regency with the young Amenhotep IV, but most historians and historical authors subscribe to the theory that Amenhotep III ruled with his wife until his death.

1378 BCE

Amenhotep marries Gilukhepa
As part of his careful web of alliances with the surrounding kingdoms, Amenhotep III agrees to marry the daughter of the Mitanni king, Shuttarna II.

1370 BCE

A daughter is born
Amenhotep III and Queen Tiye welcome a daughter, Situman, into the world. She and her sister Iset would eventually marry their own father.

1356 BCE

First Jubilee Sed Festival
The king and the queen celebrate their first jubilee after 30 years of rule on the thrones of Egypt. These nationwide celebrations are named after the wolf god, Sed.

1352 BCE

Amenhotep marries Tadukhepa
In the 36th year of his reign, a whole 26 years after marrying her aunt Gilukhepa, Amenhotep III marries another Mitanni princess.

1350 BCE

The Colossi of Memnon are completed
After years of careful planning and construction, the giant statues depicting Amenhotep and his queen Tiye are finally finished at the Theban necropolis.

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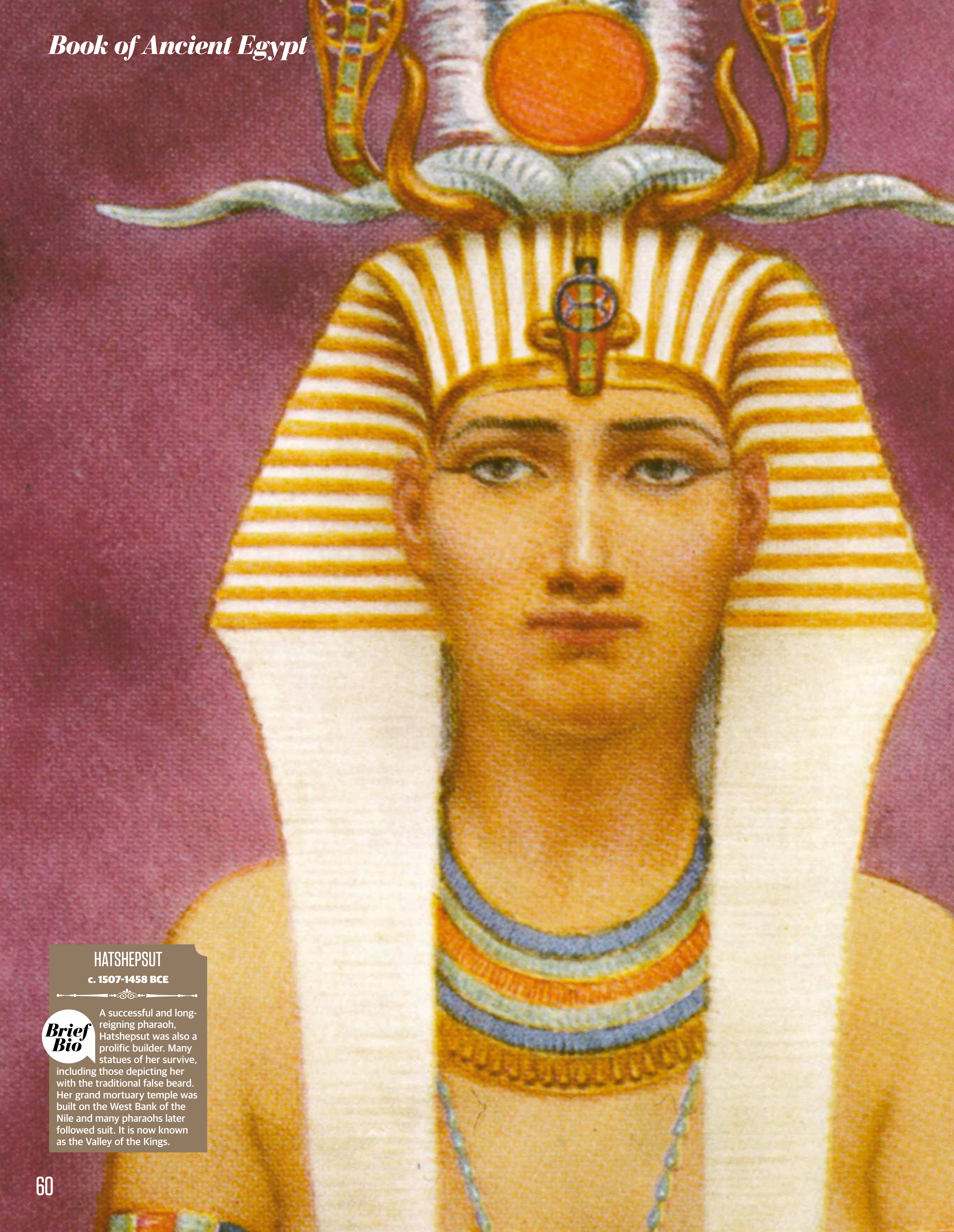

HATSHEPSUT

c. 1507-1458 BCE

Brief Bio

A successful and long-reigning pharaoh, Hatshepsut was also a prolific builder. Many statues of her survive, including those depicting her with the traditional false beard. Her grand mortuary temple was built on the West Bank of the Nile and many pharaohs later followed suit. It is now known as the Valley of the Kings.

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Hatshepsut: the queen who became king

After decades of stability, Egypt once again found itself in crisis when one woman decided to shatter the status quo

Some of the most powerful individuals of the ancient world, the pharaohs of Egypt were believed to have inherited the throne by divine right and were worshipped as gods on earth. Huge temples were built in their honour, statues were carved in their image and pyramids were built in their memory to ensure their everlasting legacy. However, in what may be one of history's biggest cover-up operations, one of its greatest rulers has been all but lost to the desert. And the reason behind this monarch's reign being erased from history might seem pretty trivial to us now: this pharaoh was a woman.

Hatshepsut was the longest reigning female pharaoh of Egyptian descent, with a rule spanning around 22 years

In the 16th century BCE, Egypt was experiencing a time of great stability. Founded by Ahmose I in 1543 BCE, the 18th Dynasty marked the start of an era when the empire reached the peak of its power. Once Ahmose had expelled the Hyksos settlers from Lower Egypt and brought the Nile Delta under his control, the nation was politically unified for the first time in more than 500 years. Ahmose reorganised the country's administration and undertook huge construction projects, which were continued when his successor, Amenhotep I, took the throne in 1526 BCE. It was a time of great strength and stability.

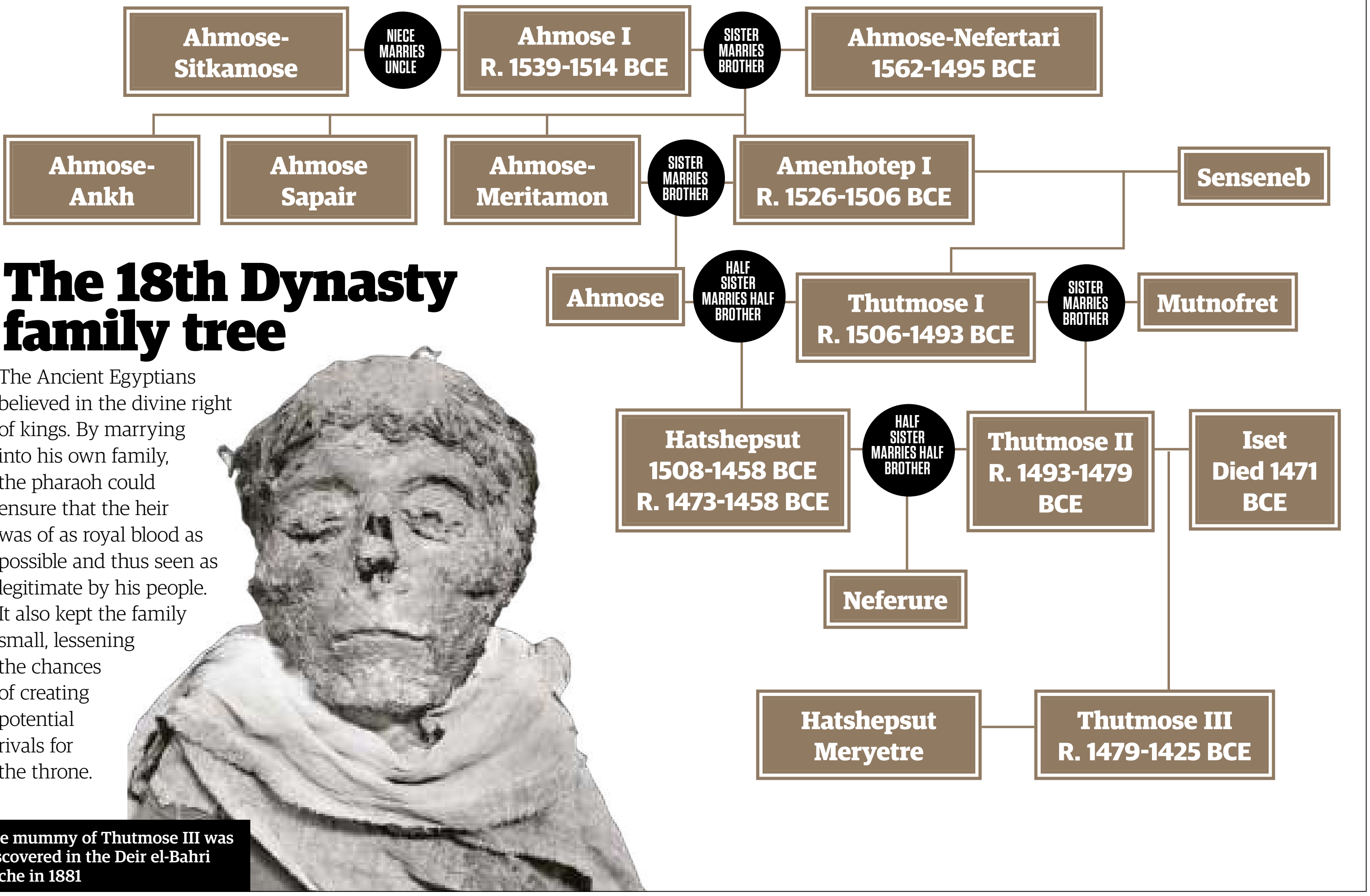
Then came the reign of Thutmose I from 1506-1493 BCE, who extended the empire's borders further than ever before. When he died, the throne was passed to his son, Thutmose II, who was born to him by one of his minor wives. To secure his kingship, Thutmose II was married to his half-sister, the daughter of Thutmose I. She was therefore of fully royal blood and declared his chief wife. Her name was Hatshepsut.

Even at the tender age of 12, Hatshepsut already held a great deal of influence in the royal court. It is likely that Thutmose II was even younger than her, so his wife took the reins when it came to making decisions on both foreign and domestic policy. Her husband was physically frail too, as his thin and scab-riddled mummy would reveal, and he ruled for no longer than 13 years before dying in his 20s. Hatshepsut had given so much during his short reign, but she had been unable provide Thutmose with the one thing he would need to continue his dynasty: a male heir.

Instead, the throne was passed to a son by a woman of his harem. The boy – also called

The 18th Dynasty family tree

The Ancient Egyptians believed in the divine right of kings. By marrying into his own family, the pharaoh could ensure that the heir was of as royal blood as possible and thus seen as legitimate by his people. It also kept the family small, lessening the chances of creating potential rivals for the throne.


Ahmose-Sitkamose
NIECE MARRIES UNCLE
Ahmose I R. 1539-1514 BCE
SISTER MARRIES BROTHER
Ahmose-Nefertari 1562-1495 BCE
Ahmose-Ankh
Ahmose Sapair
Ahmose-Meritamon
SISTER MARRIES BROTHER
Amenhotep I R. 1526-1506 BCE
Senseneb
Ahmose
HALF SISTER MARRIES HALF BROTHER
Thutmose I R. 1506-1493 BCE
SISTER MARRIES BROTHER
Mutnofret
Hatshepsut 1508-1458 BCE R. 1473-1458 BCE
HALF SISTER MARRIES HALF BROTHER
Thutmose II R. 1493-1479 BCE
Iset Died 1471 BCE
Neferure
Hatshepsut Meryetre
Thutmose III R. 1479-1425 BCE

The mummy of Thutmose III was discovered in the Deir el-Bahri Cache in 1881

Statues of Hatshepsut at the Temple of Hatshepsut show the queen donning the traditional false beard

Thutmose - was no more than a toddler, so he needed a regent who could handle the affairs of government until he was old enough to do so himself. As tradition dictated, the job fell to the widowed queen - his stepmother and aunt. For a while, the regency played out like any other that had previously been witnessed in the ancient kingdom. Monuments and reliefs from the time depict a boyish Thutmose III performing his pharaonic duties with Hatshepsut by his side. However, by year seven of his reign, and possibly much sooner, something happened that would destroy the stability that the pharaohs of the 18th Dynasty had worked so hard to create. Hatshepsut, the female regent, took the throne as king.

The transition can be plotted through subtle changes in the reliefs and inscriptions of the time. A few years after Thutmose's ascension, they began depicting Hatshepsut carrying out tasks that were more commonly reserved for the pharaoh, such as making offerings to the gods and ordering up obelisks. Then she changed her title from 'King's Wife' to 'God's Wife of Amun' and took on a new name, Maatkare (from *ma'at*, meaning order and justice as established by the gods). In doing so, she was reinforcing the idea that the throne was hers by divine right. Only she was descended directly from royal blood, therefore only she could maintain the country's prosperity and stability.

However, there was still the small problem of her gender. Ancient Egyptian religion dictated that the throne could only be passed from father to son, as women were not believed to be capable of carrying out a king's duties. To legitimise her rule, Hatshepsut would have to assume male traits. Reliefs began depicting her wearing the striped nemes headdress and uraeus cobra, symbols of a king. Others depict her wearing a woman's ankle-length gown but standing in a striding pose, the same that male figures of the time were painted in. Similarly, inscriptions conveyed both the male and female elements of the new pharaoh, incorporating feminine word endings that leading to such grammatical conundrums as 'His Majesty, Herself'. As the years went on, it seems she discarded her femininity entirely and was depicted with a broad, bare chest and wearing the pharaoh's false beard.

What inspired Hatshepsut to do the impossible and crown herself pharaoh? Some say it was pure power lust, while others argue that threats from a competing branch of the royal family forced her onto the throne in order to ensure her stepson's succession. But what is certainly true is that during her reign, Thutmose III was not kept under house arrest but was instead sent to the army to learn how to become a good soldier, and therefore a good king. That it was Hatshepsut's intention to overthrow Thutmose and possibly make her daughter, Neferure, her successor, is an unlikely scenario, but should not be ruled out entirely.

> It's not known exactly how many female pharaohs ruled Egypt, but most scholars accept that there were at least seven

Whatever the motive, Hatshepsut threw herself into the role, determined to prove herself just as a good pharaoh by virtue of her royal bloodline. She set about restoring trade routes that had been disrupted during the Hyksos occupation, dramatically increasing the wealth of the 18th Dynasty. One of these routes was to the Land of Punt, a kingdom somewhere on the Red Sea coast that has developed an almost mythological status. Five ships set out in her name, bringing back frankincense, myrrh and ebony, among other valuable goods. She also sent raiding expeditions to Byblos and Sinai. Her foreign policy is generally regarded as having been peaceful, although it is possible that she led military campaigns against Nubia and Canaan.

But it is through her building projects that Hatshepsut has left her biggest mark. Arguably one of the most prolific builders in Ancient Egypt, her commissions were grander and more numerous than any of her Middle Kingdom predecessors. She employed the great architect Ineni to construct monuments at the Temple of Karnak, as was tradition for pharaohs, as well as to restore sections that had been ravaged by foreign rulers. She erected twin obelisks at the entrance of the temple; at the time they were the tallest in the world at almost 100 feet. Reliefs commemorating the event show the obelisks being towed down the River Nile by 27 ships powered by 850 oarsmen. It would have been a monumental occasion.

She was also responsible for carrying out a vast public works programme across the empire, including the creation of a network of processional roadways and sanctuaries.

Hatshepsut's masterpiece, however, was her mortuary temple at Deir el-Bahri. Built on the West Bank of the River Nile, near to the entrance to what is now called the Valley of the Kings, the female pharaoh kick-started a new era of royal burial at this iconic location. Its focal point was the Djeser-Djeseru, a colonnaded structure that was built into the cliff face and surrounded by gardens. It was designed by Senenmut, an architect

A relief showing Queen Hatshepsut burning incense to honour a god

The search for Hatshepsut's mummy

After being lost to the desert for three millennia, a tiny piece of evidence revealed the truth to her whereabouts

Upon her death, the she-king was buried in tomb KV20 in the Valley of the Kings, alongside her father Thutmose I. However, when renowned Egyptologist Howard Carter excavated the tomb in 1903, he found nothing but a sarcophagus bearing her name; Hatshepsut's mummy was nowhere to be seen.

In 2007, a fresh search was launched by the former Minister of State for Antiquities Affairs Zahi Hawass to find the missing pharaoh. A number of unidentified female mummies from the 18th Dynasty were lined up and examined using the latest technology. One of the prime suspects was a mummy from tomb KV60, just in front of tomb KV20, where two women had been found. One could be identified as Hatshepsut's wet nurse thanks to the inscription on her coffin, the other an obese lady who had been found on the floor next to her.

Egyptologists had previously suggested that the mummy could be a royal one due to the positioning of the left arm across its chest, but only now did they have the technology to find out once and for all whether it belonged to Hatshepsut. The team performed CT scans of mummies known to be closely related to her, including the three Thutmoses, to try to create a composite image of the 18th Dynasty facial structure and compare it with the mummies in contention. While doing so, they also decided to scan other objects from the tombs, including a sealed wooden box bearing her cartouche. What this scan revealed proved to be the key to the mystery. In it, along with Hatshepsut's mummified liver, was a single tooth. Not only was the obese mummy from KV60 missing a tooth, it was also an exact match for the loose one found in the box. Hatshepsut had finally been found.

© Getty Images

Five greatest building projects

Hatshepsut's commissions were so grand that after her death, many pharaohs tried to claim them as their own

Red Chapel

Hatshepsut made several contributions to the Temple of Karnak, but this was one of her largest. It was built to be a barque shrine, where a model ship was kept. The Ancient Egyptians believed these were used by the sun god to travel through the night, and also to transport the dead to the afterlife. The shrine was made of red quartzite with a black diorite foundation.

Twin obelisks

These were erected at the entrance of Karnak, and at the time they were built were the tallest structures in the world. One still stands at 97 feet tall and weighs approximately 320 tons. An inscription at its base says that it took seven months to cut the monolith out of the quarry.

Temple of Pakhet

This was an underground, cavernous shrine dedicated to the lioness goddess of war. Cut out of the rock into the cliffs east of the Nile, the temple is composed of two chambers with a connecting passageway. A huge number of mummified cats were found here, some having been brought great distances to be buried ceremonially.

Mortuary temple

By far Hatshepsut's greatest building achievement, her mortuary temple at Deir el-Bahri consists of three layered terraces reaching 97 feet tall. Each is supported by columns and connected by long ramps that were once surrounded by gardens. It is considered the closest that Egypt came to classical architecture.

Precinct of Mut

One of the four main temple enclosures that make up the immense Karnak Temple Complex, the Precinct of Mut consists of a spring-fed sacred lake and a temple dedicated to the mother goddess. Pharaoh Hatshepsut restored it after it was badly damaged during the Hyksos occupation.

and government official who was also the tutor of Hatshepsut's daughter. A man of low birth, Senenmut's story is a fascinating one. His name first entered the historical record on a national level as the 'Steward of the God's Wife' when Hatshepsut was still regent, although after she was crowned pharaoh, he was given more prestigious titles – 93 in total – and became the 'Great steward of Amun', which put him in charge of all of Karnak's building and business activities.

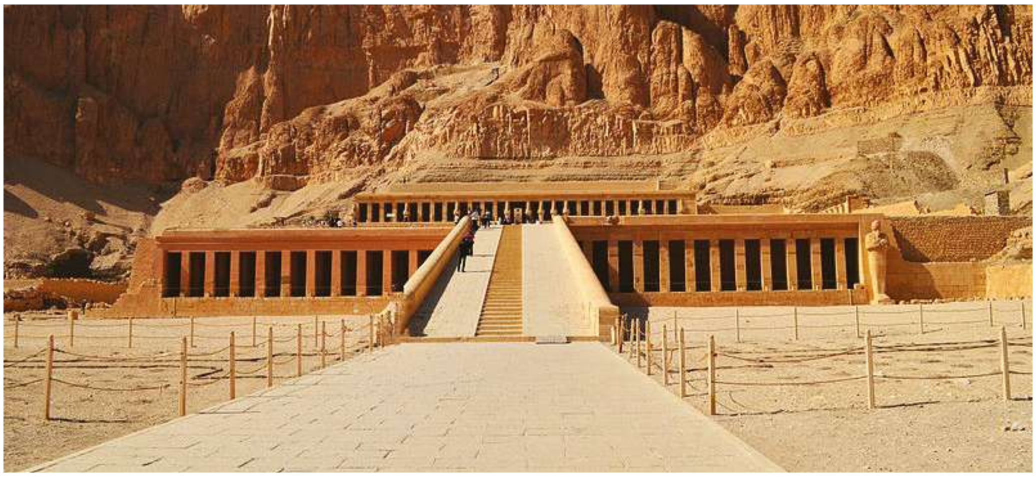
It is without a doubt that this man held significant influence in the royal court. Some historians have attributed Hatshepsut's success to him, describing him as the real force behind her rule. Others believe he may have played a far more intimate role in the pharaoh's life than this. She allowed him to place his name and an image of himself behind one of the main doors in Djeser-Djeseru, and on the walls of his tomb he is described as one who "gladdened daily the king's heart", "served in the palace of her heart", and even "saw to all the pleasures of the king". Some graffiti that was found in an unfinished tomb used as a rest house by the workers of Djeser-Djeseru depicts a male and a hermaphrodite in pharaonic regalia engaging in an explicit act. This artwork is considered further proof that the pair were engaged in a sexual relationship. Beyond this, there is little to suggest that business ever became pleasure between the pharaoh and her architect. If it had, their relationship would have been unprecedented as, despite Senenmut's numerous titles, he was still a commoner.

Senenmut went to the grave unmarried, and Hatshepsut followed shortly after in 1458 BCE after 22 years on the throne. She died in her mid 40s, possibly as a result of an infected tooth, or she may even have been poisoned by an ointment used to treat the chronic skin condition that she and her late husband had inherited from their forefathers. In a final attempt to legitimise her reign, she requested that her father, the beloved Thutmose I, be moved to her tomb so that they could rest together.

> Egyptian women had rights that many of their counterparts didn't, including the right to own property and demand divorce

Scientists were unable to confirm they had found Hatshepsut's mummy until they identified one of her teeth from a separate find

The Mortuary Temple of Hatshepsut is located on the west bank of the Nile, in the Valley of the Kings



> "Five ships set out in her name, bringing back frankincense, myrrh and ebony, among other valuable goods"

Her stepson Thutmose III went on to rule for a further 30 years, proving to be a similarly ambitious builder and a mighty warrior. He led 17 campaigns in enemy-held territory, and conquered land as far north as Syria and as far south as the Fourth Cataract of the Nile. Meanwhile, the relics of Hatshepsut's reign continued to stand proud on the Egyptian skyline, her towering obelisks and imposing statues casting a shadow in her memory upon the land she once called hers.

However, towards the end of Thutmose's regency, he ordered that his stepmother's cartouches and images be chiselled away, and her statues torn down, disfigured and smashed before being buried in a pit. There was even an attempt at Karnak to surround her obelisks with walls. Various theories have been given to explain this sudden and dramatic turn of events. Some argue that this was carried out as a typical act of self-promotion during Thutmose's waning years, while others suggest it was a money-saving method, whereby existing buildings could be accredited to the current king.

It has been suggested that when Thutmose came of age, he demoted Hatshepsut back to the role of regent, and attempted to eliminate any evidence of her as pharaoh to claim that the royal succession ran directly to him from his father. It seems the most likely explanation is not a sinister one, but rather a cold, rational attempt to extinguish the memory of an "unconventional female king whose reign might possibly be interpreted by future generations as a grave offence against *ma'at*," as Tyldesley put it. She proposes that Thutmose carefully considered how the successful reign of a female pharaoh might affect the Egyptian social order, and eventually made the decision to eliminate her records so as to prevent a feminist uprising. Hatshepsut's crime may be nothing more than the fact that she was a woman.

> The 18th Dynasty bore many of Egypt's most famous pharaohs, including Akhenaten, Nefertiti and Tutankhamun

There is still debate as to whether any other women managed to become pharaoh in the years following Hatshepsut's reign. One who caused much speculation was the wife of Thutmose III's great-great grandson, Nefertiti, as there is evidence that she was promoted to co-regent and possibly ruled as a pharaoh after her husband's death. It is clear that if she had, the Egyptians did not want her reign to be remembered, as just like Hatshepsut, her name was chiselled off records and her mummy damaged.

It would be more than 1,000 years before another female pharaoh would ascend to the Egyptian throne. Her name was Cleopatra and, unlike Hatshepsut, her story would be told in every corner of the globe for millennia to come.

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Ahmose I's unifying power

After years of unrest, one king would defy invaders, unify a kingdom, found a dynasty and organise the construction of the last ever natively built pyramid

Think of Ancient Egypt and you might very well imagine a vast empire ruled by god-fearing monarchs; men and women who erected grand tombs and monuments in their honour. But that stereotypical snapshot of the Nile kings is only half the story - for every peaceful period of absolute rule, there was a time when Egypt was divided or controlled almost entirely by foreign powers. Ahmose I, who was the founding king of the 18th Dynasty, was born into such a time. The kingdom he was destined to inherit was bisected by invaders who had dominated Lower Egypt for over a century. And it would be his defence of this long-standing status quo that would define his position as one of Ancient Egypt's most celebrated leaders.

Ahmose I had many children with his wife and sister, Ahmose-Nefertari. Two of their sons (Sapair and Saamen) died young

To appreciate the gravity of Ahmose I's actions at the beginning of the 18th Dynasty, and the effect it would have on the country for centuries to come, you have to travel back to the reign of his father, Seqenenre Tao. Tao ruled from 1560 BCE to 1558 BCE, but his time on the throne, like many before him, was blighted by an occupying force to the north of the country. Around 1720 BCE, a nation of Semitic tradesman and warriors from Asia known as the Hyksos had invaded and occupied the Nile Delta, establishing a separate realm to the rest of Egypt. The collapse of the 13th and 14th Dynasties in the south gave this tribe all it needed to take root in the region. By 1650 BCE, the Hyksos had grown strong enough to establish its own dynasty, considered the 15th, with the noble Salitis assuming the title of king in the newly established Hyksos capital of Avaris.

The Hyksos didn't rule their newly acquired land with an iron first either - if anything, their presence in northern Egypt actively benefited the region and its people. They brought with them new tools and foods, as well as opening that corner of Egypt up to the bountiful trade routes of Asia. Their arrival was a gradual one; with Egypt's fragmented political system allowing foreign traders and tribes to travel through the region with relative ease, it was inevitable that a warrior tribe such as the Hyksos would eventually settle there. The fact they brought with them chariots and compound bows, both advanced weaponry for the time, made them all the more formidable.

A counter dynasty was established in Thebes in the vacuum left by the plague-ravaged 14th Dynasty, and it was from this line that Ahmose I's family rose. By the time his father Tao came to power, the kings in Thebes were already trying to drive out their hostile neighbours. Tao taunted the Hyksos, refusing to pay tribute, and led a

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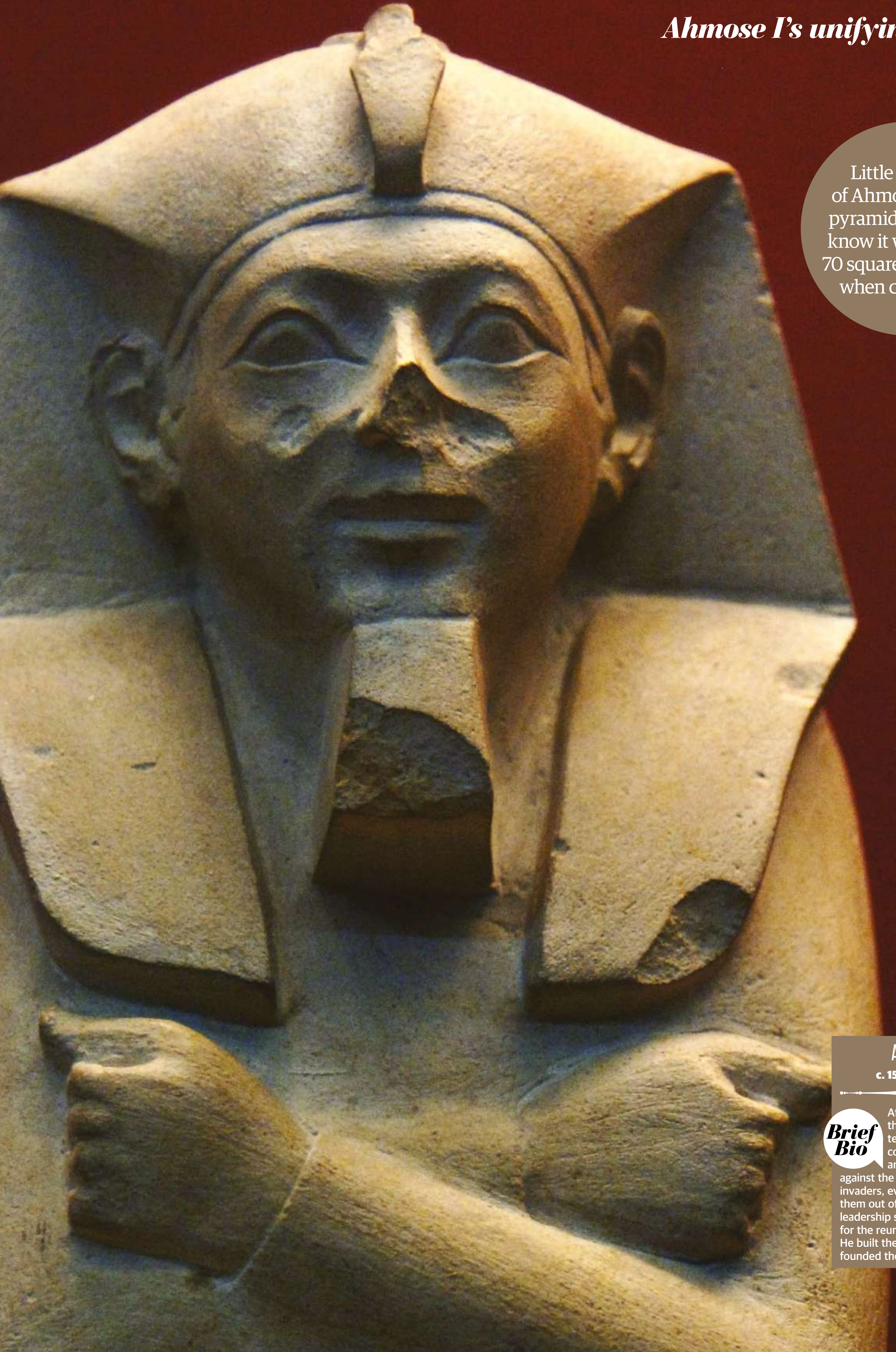


Little remains of Ahmose's single pyramid, but we do know it was around 70 square feet in size when completed

AHMOSE I

c. 1539-1514 BCE

Brief Bio

After inheriting the throne at the age of ten, Ahmose I would continue his father and brother's fight against the Hyksos tribe of invaders, eventually driving them out of Egypt. His bold leadership signalled a new era for the reunified Egyptian state. He built the last pyramid and founded the 18th Dynasty.

Statues were often built from sandstone. This one is possibly of Ahmose I

Ahmose I's mummy

Like many of the kings and queens who were preserved in grand tombs of the era, Ahmose I's mummy provides a fascinating insight into the physiological features of Egypt's most powerful leaders. Originally thought to be the body of a 50-year-old man, later studies suggest he died in his 30s. However, some clues – such as a lack of similar physical characteristics and the fact his arms weren't crossed on his chest, as per the tradition – suggest the remains may not even be those of Ahmose I.

The state of his remains also reveals an intriguing post-mortem history. His tomb was discovered in 1881 within the Deir el-Bahri (a complex network of mortuary temples located in the Theban Necropolis) alongside fellow 18th Dynasty monarchs such as Amenhotep I and Thutmose I, but it's believed his body was originally interred at Dra' Abu el-Naga (located nearby on the West Bank of the Nile).

So why was his body moved from one necropolis to another? The strips of cloth wrapped around a mummified body are often marked with hieratic script to denote the high-ranking individual and his family, but the cloth surrounding Ahmose I's body contained his name and that of a monarch who ruled Egypt 400 years later – the priest-king Pinedjem II. It's believed Pinedjem II's family moved Ahmose I's remains to join the future king because his tomb had been plundered by thieves.

> "Ahmose's military ethos was simple: attack the Hyksos relentlessly. Grind them down. Burn their fortresses."

number of military campaigns into Lower Egypt – however, considering the severe head trauma to his mummy, it's believed he likely died in one of these campaigns. The throne passed to his eldest son Kamose, who continued the war against the Hyksos. Kamose was successful in driving the Hyksos further into Lower Egypt, but he died five years into his reign.

Ahmose I inherited the throne at the tender age of ten, but with Thebes now at war with Lower Egypt, control of the country instead passed to his mother Ahhotep. While acting as regent, Ahmose I's mother is recorded as Ahhotep I, suggesting she officially took the role of queen in the interim. During this time, Ahhotep consolidated power in Thebes, uniting disenfranchised members of the Egyptian court in order to strengthen the kingdom for the campaigns to come.

By the time Ahmose I came of age and continued his father and brother's offensives against the Hyksos, the conflict had been raging for roughly three decades. After centuries of isolated rule without challenge or interference from the outside world, Egypt was now a polarised nation. It also galvanised Egypt's elite to become more actively involved in the machinations of their kingdoms and the political make-up of the wider world. Ahmose I was the blueprint for the change in mindset. He, like his brother and father, realised that the Hyksos' superior weaponry gave them the advantage, as did their fortresses along the border between the two kingdoms.

Ahmose's military ethos was simple: attack the Hyksos relentlessly. Grind them down. Burn their fortresses. Destroy their settlements and drive them out of the Delta. Around three campaigns were led by Ahmose, each one slowly pushing the Semitic warriors further and further back.

He wisely cut off the Hyksos' capital, Avaris, from outside intervention and eventually took the Horus Road and the city itself. The offensive went on for many years and was a bloody affair, as all wars are, but eventually the usurpers were sent over the border back into what we know now as Palestine and Syria.

Ahmose I's conquest of the Hyksos signalled the end of foreign occupation and the beginning of the country's unification. The Egyptian king could see his nation was a pale imitation of former glories and was in dire need of reorganisation and rejuvenation. He continued his military excursions with haste, keen to re-establish Egypt's once far-reaching hold. After chasing the Hyksos back into Syria, he continued operations there, likely burning their bases and acquiring

> Ahmose was a follower of the god Amen and dedicated many military victories to him (a trend followed by many later pharaohs)

Defining moment

The 18th Dynasty established

1539 BCE

Interestingly, the beginning of the 18th Dynasty (with Ahmose I as its first pharaoh) wasn't officially established until after Ahmose successfully drove the Hyksos out of Egypt around 1520 BCE – however, like many dynasties, its official numbering was established retroactively. The victory of the Hyksos and the unification of Upper and Lower Egypt was deemed a worthy enough achievement to warrant the dawning of a new era. As such, the beginning of Ahmose I's reign is considered to be the start of the 18th Dynasty.

Timeline

1720 BCE

Hyksos invade
Asian traders and warriors occupy the Nile Delta, establishing a separate realm to the rest of Egypt. This eventually expands to cover the entirety of Lower Egypt.
1720 BCE

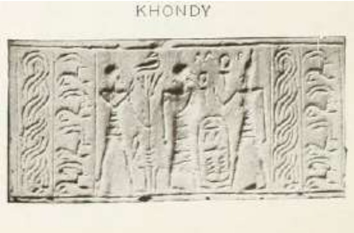
Kamose dies
Ahmose I's brother dies of unknown causes – the throne eventually passes to his younger brother, who is now ten years of age.
1550 BCE

Ahhotep becomes regent
Since Ahmose is still too young to rule by himself, de facto control of Upper Egypt falls to his mother Ahhotep. A popular individual, she maintains the attacks against the Hyksos.
1550-1539 BCE

Ahmose I marries Ahmose-Nefertari
As is the tradition, Ahmose I marries a number of his sisters. Ahmose-Nefertari is made his Chief Wife – he also weds sisters Ahmose-Sitkamose and Ahmose-Henuttamehu.
1537 BCE

Campaign against Hyksos
It is around this time that Ahmose I officially begins coordinating military campaigns against the Hyksos. Khamudi is the established king in Lower Egypt.
1532 BCE

Tjaru falls
In the early months of Ahmose I's campaign against the Hyksos, his forces take control of the fortress Tjaru, effectively cutting off the Hyksos capital of Avaris from the Hyksos homeland, Canaan.
1532 BCE



land and territory. He also pushed further into Nubia, showing an aggressive new attitude to foreign relations.

Ahmose I's bold leadership was ushering in a new era for Egypt. The Middle Kingdom and Second Intermediate Period eras, riddled with political in-fighting and foreign occupation, was over; the New Kingdom was here and Ahmose was determined to rebuild the country's glory. The reunified north brought with it new artistic and architectural techniques, including advances such as glass blowing. The arts thrived under Ahmose, with pottery and other forms of expression filling the streets of Thebes and the wider kingdom. Ahmose's expansive campaigns brought wealth back into Egypt, which he put to good use, building new temples and starting construction on a new pyramid - one he hoped would rival the great structures in Giza.

Thebes itself was also a key component of Ahmose's new vision for Europe. He started by making the city his capital - a simple choice considering it was his family's home. Thebes had also been the country's cultural and spiritual epicentre during the prosperous age of the Middle Kingdom, so the locale had considerable historical value for Ahmose I, a man who was desperate to rekindle those glory days, even purely by association. Finally, Thebes' geographical location had an impact on its new status as capital; being situated in the middle of the newly unified nation afforded the city a little more protection from a potential reinvasion by the Hyksos, as well as providing enough distance to monitor the Nubians to the south.

> 'Ahmose' translates roughly from Ancient Egyptian into 'The Moon is born' or 'The child of the Moon'

Ahmose I is also famous for being the last Egyptian monarch to have a pyramid erected on native soil. With one foot planted in the golden years of his kingdom's past, Ahmose I desired a prosperous new age for his people. His successes overseas had boosted the economy and he wanted to express it in the most lavish way possible, with a pyramid. It would be a monument to his life and achievements, and would stand for all time in his homeland.

Interestingly, Ahmose's pyramid wasn't built as a tomb, but rather a cenotaph (in other words, a purely ceremonial monument). It was built near Thebes, in what we now know as Abydos, and was completed in the final years of his reign. It was constructed from sand and rubble, as was the tradition of the time, with limestone used as a casing to hold the pyramid in place. When it was completed, it had a base length of around 52.5m (172ft) and a height of 40m (130 ft). While it was considerably smaller than the grandest of tombs found elsewhere in the country (the Pyramid of Giza stands at a colossal 130m), it would have still been an impressive sight among the temples of Thebes. Tragically, the pyramid didn't survive; it was mostly stripped of its precious limestone for other buildings in the years after Ahmose's death and the rest of the construct soon crumbled. Only a pile of rubble 10m high remains where it once stood.

Like many pharaohs, the date of Ahmose's death isn't certain, but the most common theory cites 1525 BCE. Yet it's a testament to the impact he had on Ancient Egypt in life, that the nature of his death hardly mattered - unlike other pharaohs.

Khamudi: The last ruler of the 15th Dynasty

While it would be his father, Apepi, who first began defending the Hyksos-controlled Lower Egypt against the newly renewed Theban court, it would fall to Khamudi to fight the greatest challenge to their occupation (and ultimately fail). But who was this usurper king, the last of the self-appointed 15th Dynasty to rule over half of Ancient Egypt?

The man named Khamudi remains one of the greatest mysteries of the 15th Dynasty, mainly due to the brevity of his reign. A number of historians, including Egyptologist Kim Ryholt, suggest his rule lasted barely a year compared to the four decades of his father. Other historians, including Donald Redford and Dr Aidan Dodson, subscribe to the theory that Khamudi's reign lasted around ten to 12 years. We do know that Khamudi had evacuated most of his people from the Hyksos capital of Avaris prior to the last and most violent siege of Ahmose I, however it's unknown whether the Semitic ruler died in the siege or fled to Syria/ Palestine with the rest of the refugees. A single monument - an obelisk - attributed to his reign remains in Avaris.

Defining moment

The kingdom expands

1528-1525 BCE

After driving the Hyksos back into Syria and Palestine, Ahmose begins expanding the newly unified Egypt exponentially. To the north, he chases the Hyksos, destroying fortresses far beyond the Egyptian borders. Some historians argue that Ahmose was actively hunting the Semitic invaders down, while others prefer the theory that he was simply fortifying his own borders. During this 22nd year of his sovereignty, Ahmose pushed as far as the Eastern Mediterranean. He also conducted a number of campaigns in Nubia (modern-day northern Sudan) to the south.

Defining moment

Ahmose dies

1525 BCE

Unlike his brother, Ahmose I's reign over Egypt isn't short-lived - in fact, he ends up ruling the country for around 25 years before dying at the age of 35. The cause of death is unknown, but by the time the throne passes to his son, Amenhotep I, Egypt has prospered. Successful military campaigns and renewed trade with neighbouring nations have brought wealth and new commerce to the country, while a renaissance in the arts (including architecture and textiles) sees Egypt rejuvenated with new temples and sites of tribute to the god Amun.

Ahmose I takes Avaris

Between the 18th and 19th years of his reign, the Hyksos capital of Avaris finally falls. By controlling this city, the Theban ruler drives the invaders towards Canaan.

1529-1528 BCE

The heir apparent dies

Initially, the young Ahmose-ankh is deemed Ahmose I's successor, but he dies, so the line of succession instead turns to his eldest son, Amenhotep.

1531-1526 BCE

The pyramid rises

Ahmose commissions a new pyramid, the first in centuries, to be erected at Abydos. It's smaller than other pyramids by completion, but is still an impressive sight from Thebes.

1528 BCE

1525 BCE

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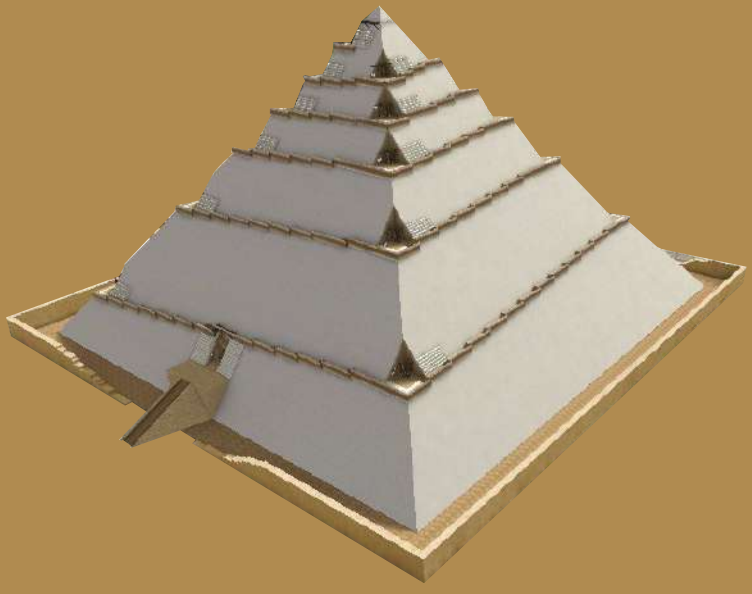
THE PYRAMIDS

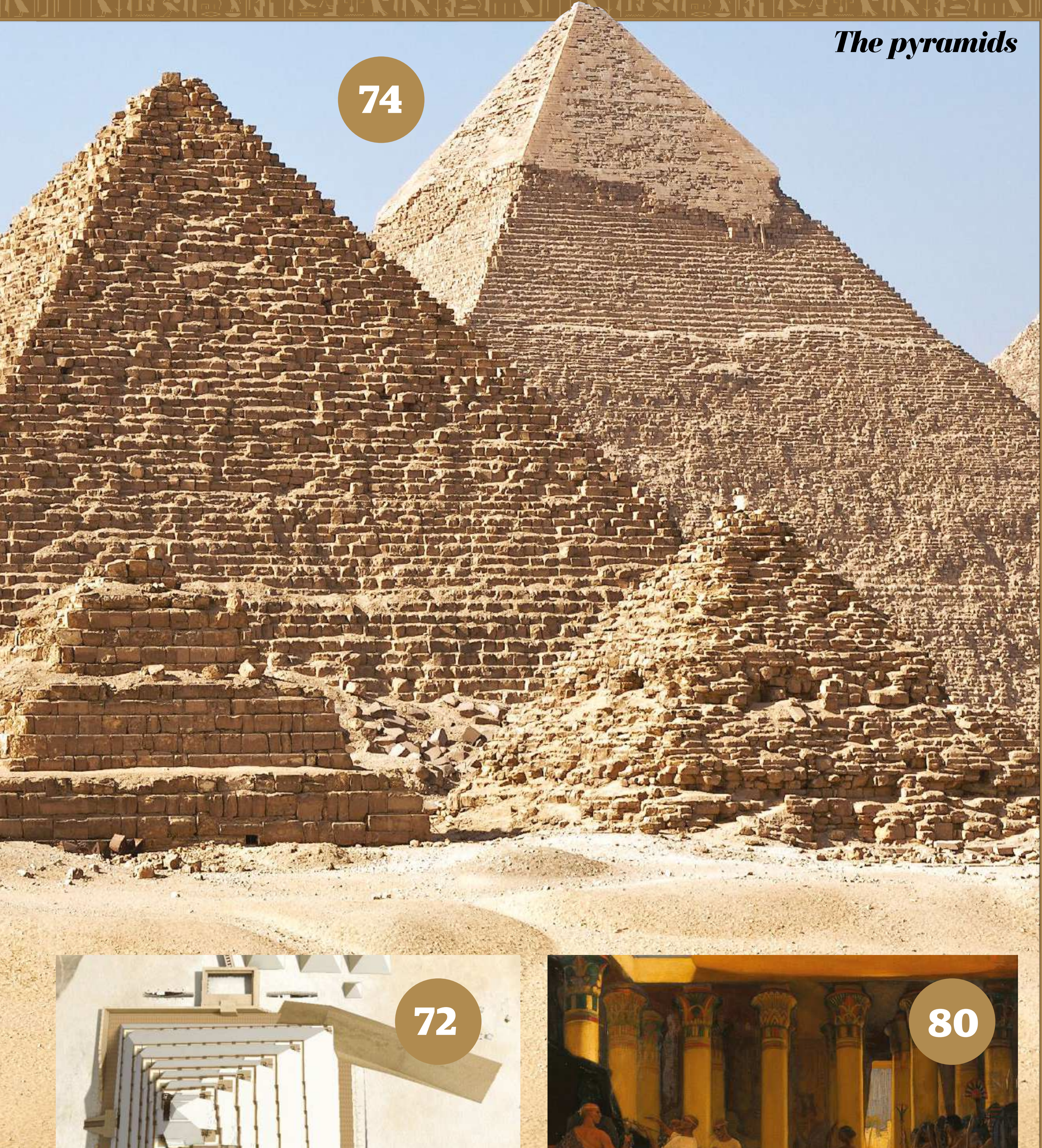
Wonder at the magnificent feat of construction that was pyramids, which were raised to house the dead

72 Inside the Great Pyramid
Get to grips with this awesome landmark

74 Building the pyramids
Understand the feat of construction behind the most iconic symbols of Ancient Egypt

80 Pyramids of a polymath
Meet the brilliant mind behind the impressive Pyramid of Djoser

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Inside the Great Pyramid

One of the Seven Wonders of the World, explore the intricate architecture of Khufu's pyramid

Although Egyptologists have been studying the Great Pyramid of Khufu for centuries, they haven't yet reached a consensus on how it was built. Specifically, how were the massive two-ton blocks placed 480 feet above the desert floor?

A French architect named Jean-Pierre Houdin has posited a theory to explain the mystery. Houdin has devoted his time to studying the Great Pyramid and creating graphical models using 3D software. He proposes that an external ramp was built to haul the rocks – pulled by means of ropes – for the first 60 metres or so of the pyramid. Then an internal ramp was built to continue hauling rocks up. It is a mile-long, narrow structure spiralling inside the pyramid, much like the ramps in a parking garage. To allow for men to haul the stones, the ramp is at a seven per cent slope. Somehow it has remained hidden inside the pyramid since its completion 4,500 years ago.

But how would men hauling the blocks up the ramp make the turn at each corner of the ramp? They would need a place to stand in front of the blocks. Houdin believes that each corner was temporarily left open, with a notch of about three square metres. Wooden cranes were stationed in each open space to lift the blocks onto the next level of the ramp. Later the notches were filled in.

There is some evidence that an internal ramp exists at the Great Pyramid. In 1986, a team of French scientists used microgravimetrics to survey the pyramid. They were looking for hidden chambers by checking for areas of low density, which would indicate open spaces. The team did find one new chamber that was filled with sand. However, one diagram puzzled them – there appeared to be a low density spiral inside the

Layout of the Pyramid of Khufu

The Great Pyramid has both ascending and descending chambers

01 The King's chamber
This is the main chamber of the pyramid. Unlike later pyramid chambers, its walls are blank. A granite sarcophagus sits inside, but no lid has ever been found.

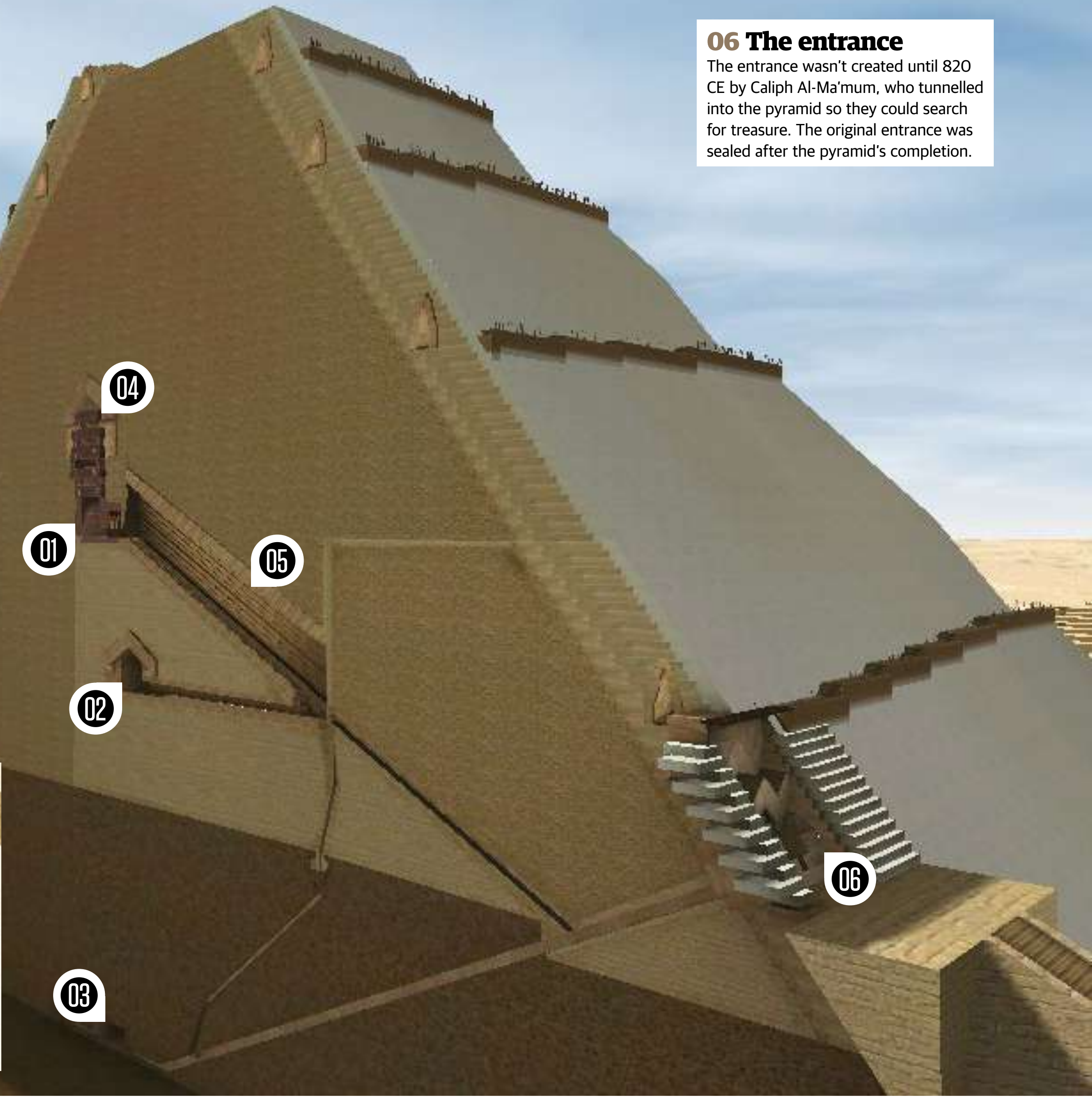
02 The Queen's chamber
The name of this chamber is a misnomer. Many Egyptologists believe that it was originally built for Khufu. However, as he was still living when the chamber was finished, it was abandoned.

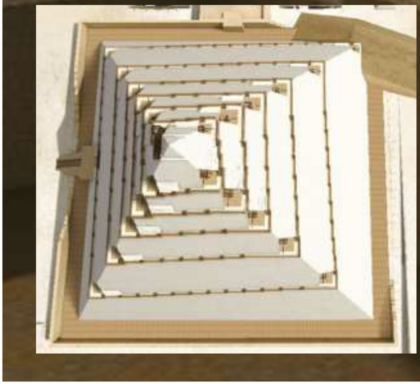
03 Unfinished subterranean chamber
This chamber lies below ground level. It may have been built in case Khufu died early, but he may have also simply changed his mind about where he wanted to be buried.

04 Relieving chambers
Houdin believes that these chambers were built to relieve weight on the King's Chamber. Others have thought that they were for ventilation or to allow Khufu's soul to rise to heaven.

05 The grand gallery
This long, narrow room slants upwards. It has a corbelled ceiling and benches along its sides, with slots cut into each bench. Egyptologists aren't quite sure about its use.

06 The entrance
The entrance wasn't created until 820 CE by Caliph Al-Ma'mum, who tunnelled into the pyramid so they could search for treasure. The original entrance was sealed after the pyramid's completion.

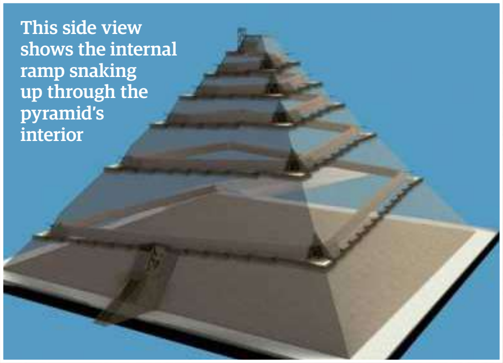


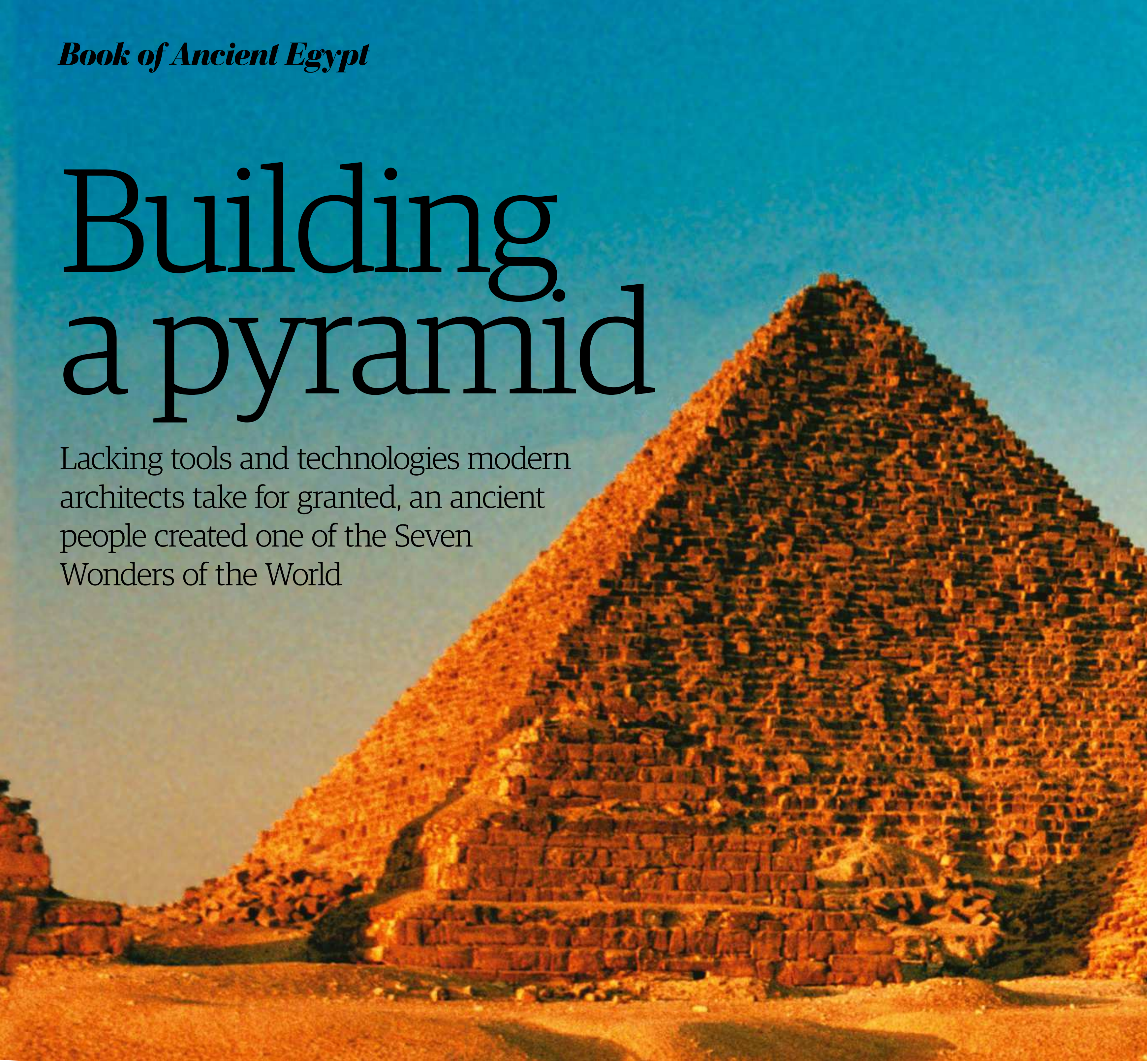

According to Houdin, openings were left at the corners so workers could use the internal ramp

pyramid. In 2000, a member of the team met with Houdin and showed him this scan, which lends weight to his internal ramp theory.

During a 2007 visit to the Great Pyramid, Egyptologist Bob Brier pointed out two more features that could be supportive evidence of the ramp having existed. When the Sun hits the pyramid at a certain angle, you can see broad white lines at a seven per cent angle running around it. Brier climbed the pyramid to examine what appeared to be a notch. Although it had irregular measurements, there was a small chamber that he had never heard about before. It could be the remains of the open notch leading to a ramp. In addition, Brier has pointed out that the Sun Temple, built 100 years after the Great Pyramid and now partially in ruins, contains an internal ramp. This shows that the Egyptians were building these types of ramps.

Working with the former director of the German Archaeological Institute, Houdin's petitioned the Egyptian Supreme Council of Antiquities to survey the pyramid in a non-destructive way. So the mystery of the Pyramid of Khufu may not be quite so far off as we may at first imagine.


This side view shows the internal ramp snaking up through the pyramid's interior



Building a pyramid

Lacking tools and technologies modern architects take for granted, an ancient people created one of the Seven Wonders of the World

The god-king's legacy is complete. The immense life-giving river that flows nearby - later to be called the Nile - has by now had people farming its banks for about two and a half millennia. Like almost every pyramid, it rises from the Nile's west bank, the place where the sun 'dies' each evening. Later visitors will see an exterior of ascending ochre-brown bricks, for its outer surface of reflective limestone will have long ago been stripped away. Today it gleams white in the sunshine.

What will one day be called the Great Pyramid of Giza is located on a plateau, south of the future city of Cairo. Paintings and postcards will later on create an impression of windswept loneliness, where pyramids are set amid uninhabited desert.

In reality, both then and now, the structure looms over a sprawl of human activity. For over 20 years, thousands of men have laboured to get around 2.3 million blocks in position at a rate of around 300 stones per day. Contrary to later myth, these people are not slaves sweating under the whip, but paid workers, some of whom possess specialist skills. Two settlements rise nearby, one for permanent workers and their families, the other for the migrants who work here for a few months at a time.

The god-king is called Khufu, although he will also be known as Cheops. Around seven centuries before his birth, the unification of a southern and northern kingdom had created a dynasty with mighty pharaonic rulers at the helm. In this time, the Early Dynastic period has given way to what will be called the Old Kingdom.

It was the Old Kingdom pharaoh Djoser who ordered the building of the first 'step' pyramid at Sakkara, 20 kilometres south of here. That design, involving receding platforms, was the work of Imhotep, one of the few Egyptians - besides the pharaohs themselves - who will one day be venerated as a god. As *vizier* (chief official) to the pharaoh, Imhotep also excelled as an astronomer and physician. In the latter capacity he wrote a text that describes the treatment of over 200 illnesses.

But not even a god-king is spared his or her mortality. That, above all, is the purpose of the pyramid. The pharaoh's soul is destined to reach an after-world called *Sekhet Aaru* (meaning 'the Field

The pyramids of Giza were once clad in limestone, which made them gleam white in the sun

> "Khufu has been planning his 'house of eternity' since ascending the throne"

The Great Pyramid was the world's tallest man-made structure until Lincoln Cathedral was built in 1311

of Reeds'). If his soul so chooses, he can return to earth, the apex of the pyramid serving as a beacon.

When the Great Pyramid of Giza is complete, its base covers 13 acres and its summit rises to 481 feet (147 metres). Within a few decades, two of Khufu's successors, Khafre and Menkaure, will have left pyramids of their own a few hundred metres away, together with a massive reclining sphinx statue. The three Giza pyramids, their sides perfectly aligned to face north, south, east and west, will dwarf all others built before or after.

Like all the pharaohs, Khufu has been planning his 'house of eternity' since ascending the throne. As the intermediary between the gods and mortals, it is believed he will become Osiris, god of the dead upon dying.

And to expedite the passing of the pharaonic soul, the pyramid has been set within an expansive complex. Khufu's funeral will begin in a temple in the adjacent valley from where his body will be transported by priests to the pyramid along a causeway. There is a mortuary temple where his body is worshipped and three smaller pyramids for his queens. Meanwhile, noblemen will be buried in nearby *mastaba* (bench) tombs, the standard Egyptian tomb during the Early Dynastic period.

Upon his death, Khufu's great solar barge, 143 feet by 19 feet (43 metres by 5.7 metres), is buried in a deep pit for his use in the afterlife. Within the pyramid itself are ascending and descending passages, shafts for the possible purpose of ventilation and at least three chambers. Future explorers will find a subterranean chamber, apparently never used.

Above this is a room, later to be misleadingly called the Queen's Chamber, which was likely used as a store for the pharaoh's funerary gifts. Highest of all is the King's Chamber, its roof supported by granite beams, each weighing 50 tons and designed to deflect the weight of the masonry above. Here, almost in the centre of the pyramid, the pharaoh's mummified corpse is placed within a granite sarcophagus. But sometime in the ensuing 45 centuries it will be lost, or even perhaps stolen by tomb raiders.

The god-king's legacy, the last surviving Wonder of the ancient world, survives. Of the god-king himself, there is nothing.

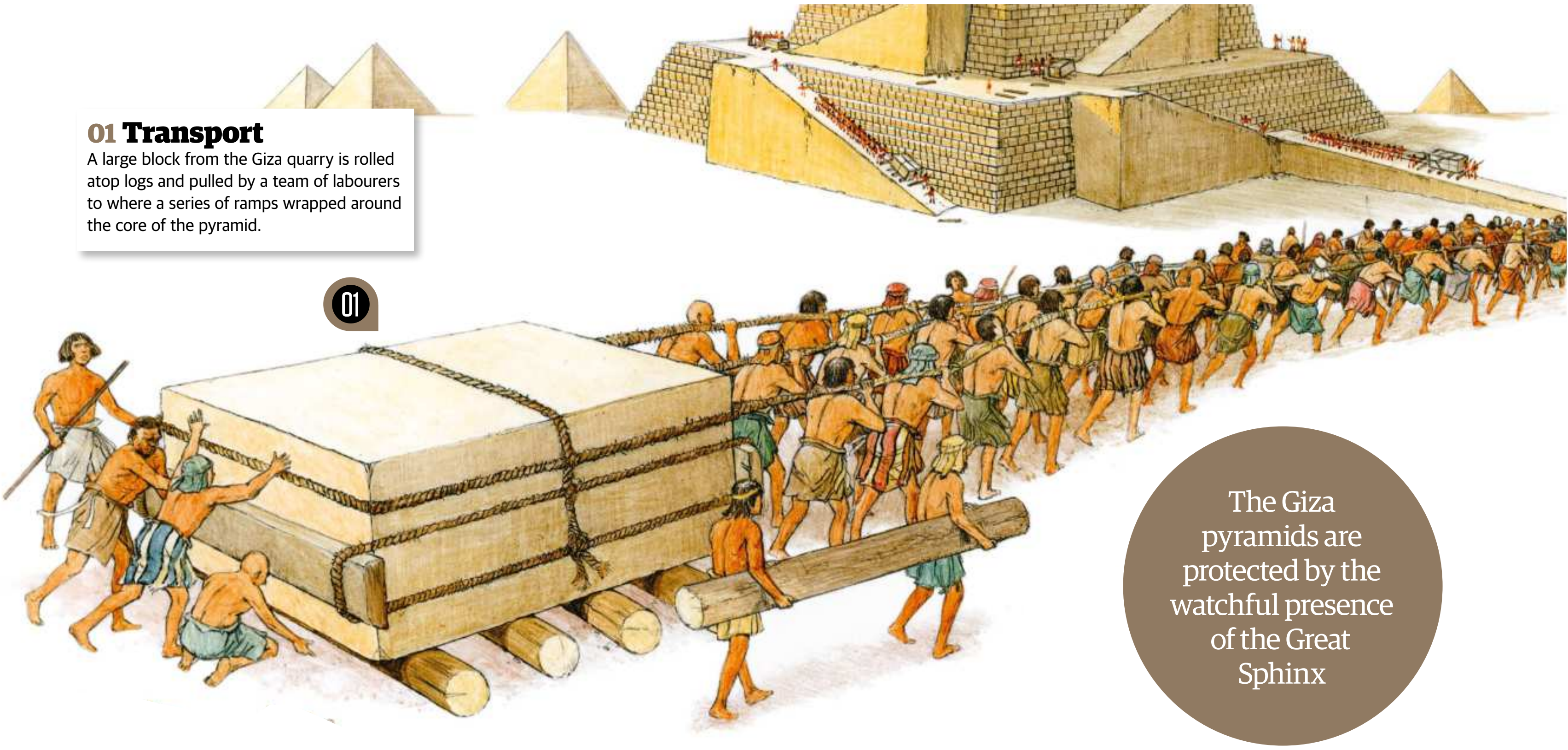
© Alamy

Built by slaves?

The popular image of the pyramid's construction involves immense lines of labourers dragging vast blocks along with a lash from the slave-driver's whip. The Flight from Egypt is described in the Old Testament's Book of Exodus. The Greek historian Herodotus visited Egypt around 450 BCE and surmised that the Giza pyramids were built by 100,000 slaves "who laboured constantly and were relieved every three months by a fresh gang." In 1888, British archaeologist Flinders Petrie, examining the Middle Kingdom pyramid at Lahun, found the remains of a labourers' town. Its encircling walls suggested the labourers were captives. Slavery did exist during the various dynasties. However the estimates of Herotodus are wrong: it is more likely that the Giza pyramids were built by around 5,000 primary workers (quarry workers, hauliers and masons) augmented by another 20,000 secondary workers (ramp builders, mortar mixtures, artists, cooks, wood suppliers). Egyptologist Mark Lehner, an associate of Harvard's Semitic Museum, did research during the Nineties at Giza, and eventually discovered two settlements southeast of the Great Pyramid. One was laid out in an organic fashion, suggesting it grew over time. The other town was laid out in a grid fashion, bounded to the northwest by a great wall, known today as the 'wall of the crow.' The grave of a pyramid builder was inadvertently discovered by a tourist in 1990. A decade later, the nation's chief Egyptologist Zahi Hawass announced the discovery of labourers' remains in grave pits near the pyramid, which would have been an unlikely privilege for a slave. Although not mummified, the dozen skeletons were buried in foetal positions, heads pointing west and feet pointing east, in the traditional Egyptian fashion. These workers had bread and beer placed in the pits, offerings for the afterlife. Graffiti within the pyramids have been signed by crews such as the 'Friends of Khufu' or the 'Drunks of Menkaure,' pointing to a team ethic and the likelihood of specialised work groups. Lehner's research indicates the workers in both settlements were well fed. Animal remains reveal that they ate 21 cattle and 23 sheep per day, shipped to the site from outlying farms.

Although associated with Ancient Egypt, the very first pyramids were probably built in Ancient Mesopotamia

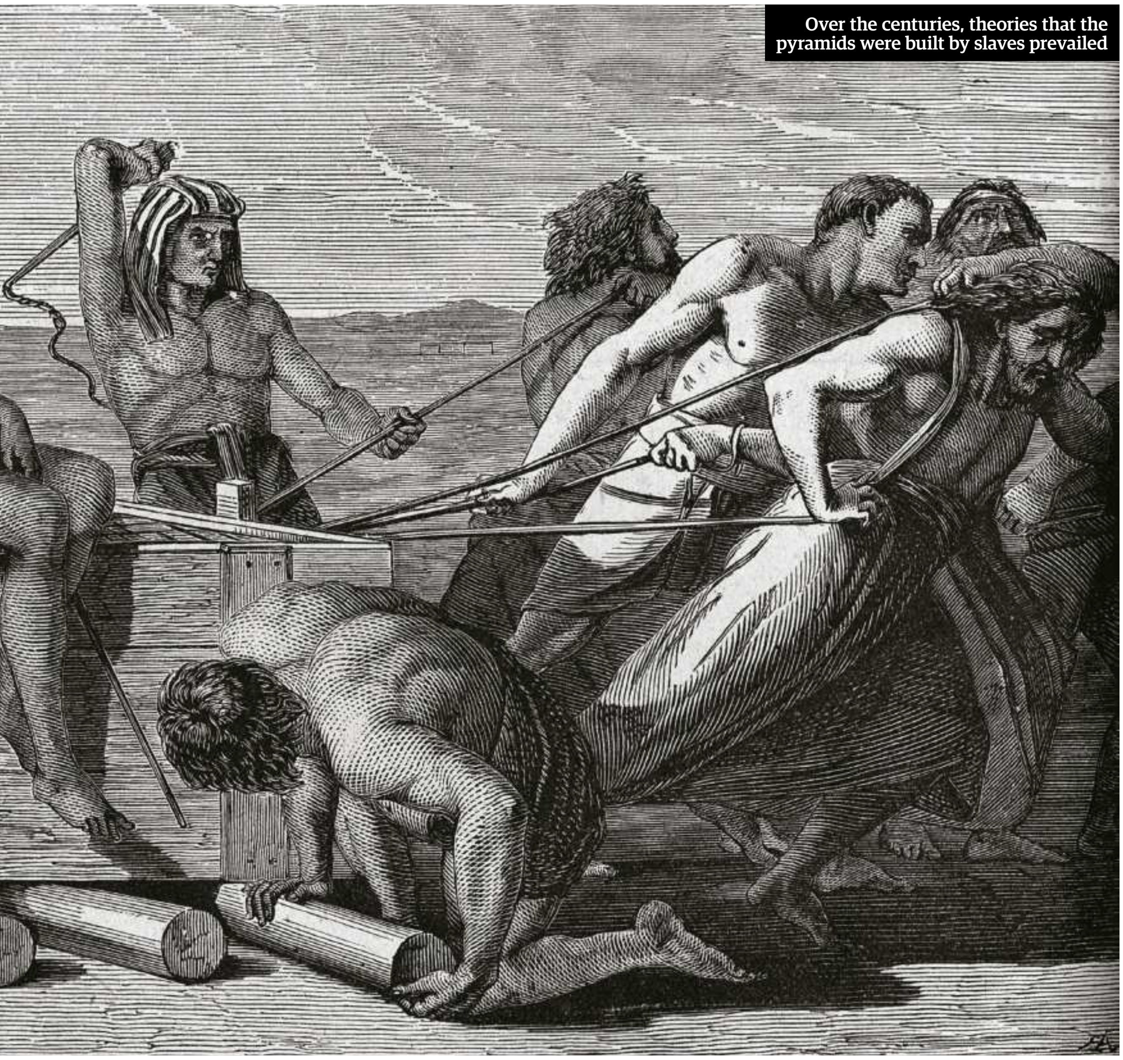
"The grave of a pyramid builder was discovered by a tourist in 1990"



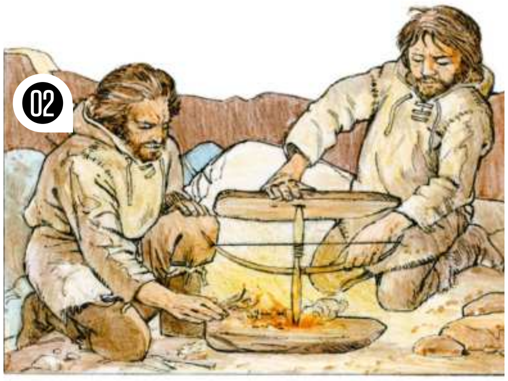
01 Transport

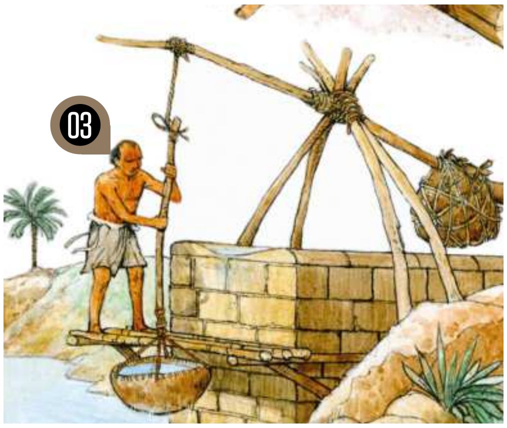
A large block from the Giza quarry is rolled atop logs and pulled by a team of labourers to where a series of ramps wrapped around the core of the pyramid.

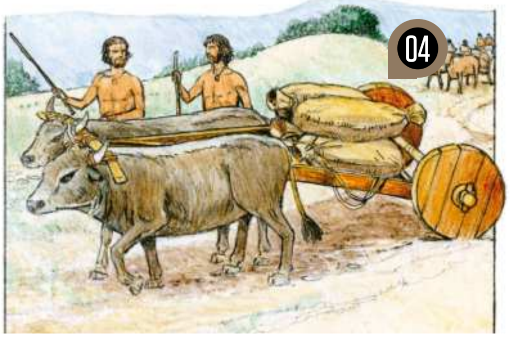
The Giza pyramids are protected by the watchful presence of the Great Sphinx



Over the centuries, theories that the pyramids were built by slaves prevailed







02 Limestone
The Tura limestone used for the casings of the pyramids, which made them gleam white, is cut into blocks.

03 Water
Water is sourced from the Nile to lubricate the movement of wooden sleds over sand and gravel, or mixed with mud and baked to make bricks.

04 Oxen
Oxen are occasionally used in the transport of bricks from Giza and the nearby Fayoum depression.

Day in the life of a pyramid builder

Workers with specialist skills lived nearby, while migrant labourers worked month-long shifts

06:00 am

The craftsman (stone carver) lives with family in a typical Egyptian house within a labourer's town. The house has a pillared public area, a domicile and a rear area for cooking. At dawn he rises and has a breakfast of figs, dates and bread with his family. Meanwhile, a migrant labourer rises in a simpler dwelling that he shares with other men.

07:00 am

The craftsman joins fellow workers and they head to the quarry. The pyramid has been under construction for over a decade, but the craftsmen consider its construction as part of their duty to the gods. They use stone and copper tools such as chisels and drills. At other times they will be carving passages within the pyramid itself.

10:00 am

The labourers are attempting to shift a 2.5 ton block from the quarry. Wooden containers in the shape of a quarter-circle are attached to each corner of the block so it can be rolled along like a barrel. At other times the blocks are dragged along using robes, and sled-wheels would be impeded by sand and gravel.

11:00 am – 1:00 pm

In the mid-morning heat, the workers break and chat. The stone carver goes to an area of shade and maybe takes some wine from a pitcher. In the early afternoon, both the stone carver and labourer break for lunch. They eat bread and fish caught in the Nile.

16:00 pm

When the labourers reach the building site, they must transport the blocks up ramps encircling the core of the pyramid. The men haul the blocks along the ramps by rope and lever them upwards. Huge amounts of gypsum and rubble are used to fill the gaps between the blocks.

19:00 pm

The craftsman arrives home and he and his family have a meal of roasted beef or mutton with carrots and lentils. As darkness gathers, he has some beer and lights an oil lamp. If in the mood, he might play the board game senet with his children. As his family settles down for the night, the labourer is doing likewise, dreaming of the day his shift ends and he can return to his family village.

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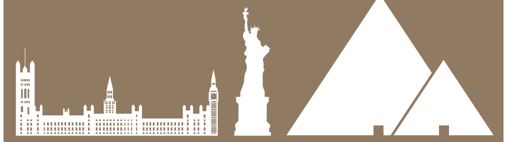
The pyramids in numbers

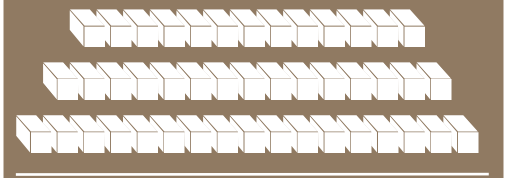
The Great Pyramid was the world's tallest artificial structure for 3,800 years



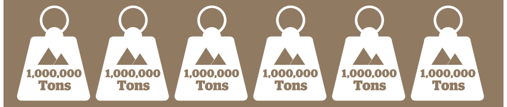
The pyramid had a workforce of around 30,000 people, rotated over time

30,000

Around 45,000 cubic metres of stone were removed from the Aswan quarry

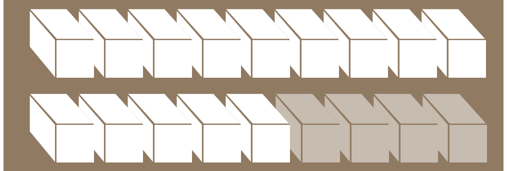


The Great Pyramid of Khufu weighs an estimated 5,955,000 tons



The workers' settlement had a population of approximately 15,000 people

The pyramid's outer casing had 144,000 polished stones*



*White blocks represent 10,000, transparent blocks represent 1,000 stones

The limestone quarries in Giza as they appear today

Quarries, ramps & levers

The pyramids were preceded by tombs called *mastabas* (an Arabic word meaning 'bench'), which consisted of an underground burial chamber and overground chapel. These *mastabas* first seem to have appeared some time around 3500 BCE, during a time when mummification techniques were also in the process of being perfected.

By the Third Dynasty of the Old Kingdom, pharaoh Djoser had sufficient wealth to commission the first 'step' pyramid atop an existing *mastaba*. But it was under Khufu's father Snefru that the first true pyramids appeared. His earliest pyramid at Maydūm was originally a step pyramid, but it collapsed after attempts at modifications. Of his two later pyramids at Dashūr, structural faults left the Bent or Blunted Pyramid with its characteristic incline. Later, the Red Pyramid was successfully built as a true pyramid.

> Despite the substantial literacy of Ancient Egypt, no records exist of building plans or discussions of methods and materials

The lessons of Maydūm and Dashūr impressed upon Khufu's engineers the importance of getting the foundations right: the base of the Great Pyramid is level to two centimetres. To achieve this, the workers may have poured water into the excavated site and levelled everything above the waterline. They would then lower the water level, removing more material until the foundation was level.

The pyramids were made of limestone, granite, basalt, gypsum and baked mud bricks. In the case of the Giza pyramids, limestone blocks were quarried at Giza and probably a few other sites. The granite stones may have been brought up the Nile by barge from Aswan, and basalt was sourced in the nearby Fayoum depression.

The blocks would have been carved away using copper or stone tools. Transporting them to the building site would have presented serious challenges and is a source of much speculation today. To move some of the larger blocks by barge, canals may have been dug. Most blocks were probably dragged overland on wooden sleds with ropes. Alternatively, blocks may have been placed atop wooden rollers or within circular containers to be rolled along like a beer keg.

When the blocks arrived at the site, there would have been several thousand workers there: some skilled craftsmen, some labourers, some locals and some from outlying provinces.

Getting the blocks up and into position involved building a series of ramps upon inclined planes of mud, brick and rubble. As the pyramid grew taller, the ramp had to be widened and extended or else it would collapse. Since the core of a true pyramid was essentially a step pyramid with packing blocks laid on top, the ramps would not have approached it at right angles; instead they ran from step to step. American Egyptologist Mark Lehner speculates that a spiralling ramp may have begun in the stone quarry to the southeast and continued around the pyramid. The blocks were drawn into place on sleds that were lubricated by water or milk.

More recently, the French Egyptologist Jean Pierre Houdin has used 3D imaging to identify an anomalous spiral structure within Khufu's pyramid. Houdin proposes a theory based around an internal ramp: a regular external ramp was used for the first 30 per cent of the pyramid, then a spiralling internal ramp transported the blocks beyond that height.

Levering methods would have complemented the ramp structure. The blocks may have been lifted incrementally, using wooden wedges to gradually move the stones upwards. It would have been a tremendous feat.

An enduring mystery

The end result was a structure that was symbolic on many levels. The pyramid's sloping limestone walls are representative of the descending rays of the sun, and its north pointing shaft points to the area of the night sky around which the stars rotate.

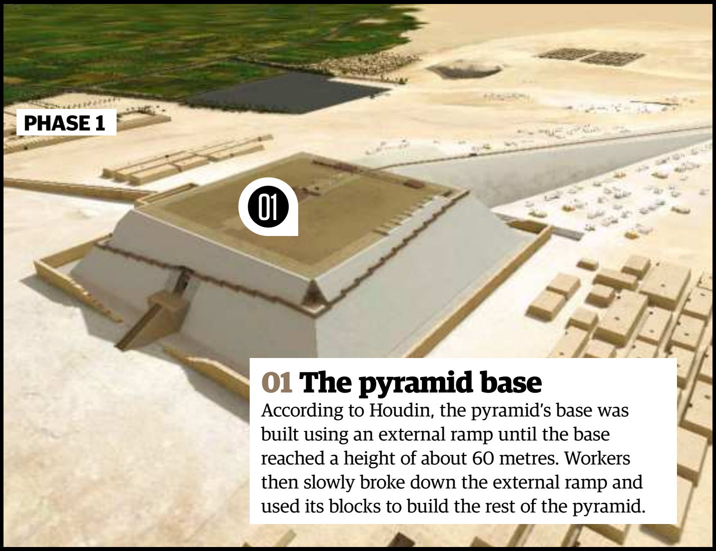
A modern visitor entering Khufu's pyramid does so through the so-called 'Robbers' Tunnel'. In 820, the Arab Al-Ma'mun led his men on a tomb raid. The men expected to find treasure, but Al-Ma'mun himself was intrigued by a legend that the pyramid contained a book of limitless historical knowledge. To get inside, they used brute force. They used fire and battering rams to gain entry. Previously, in a fit of religious fanaticism, the sultan of Egypt, Al-Aziz Uthman (1171-1198), had attempted to demolish Khufu's pyramid. He failed, due to the scale of the monument, although damage was done to Menkaure's pyramid, and in many ways the pyramid remains impenetrable even today.

Despite valid theories and advanced imaging technologies, much about its construction and purpose will probably always be mysterious. However, built with mostly voluntary labour and rudimentary technologies, apparently in tribute to a single human, it has far outlived the ancient civilisation that produced it. In four millennia from now, who can know whether the same will be said of today's great buildings?

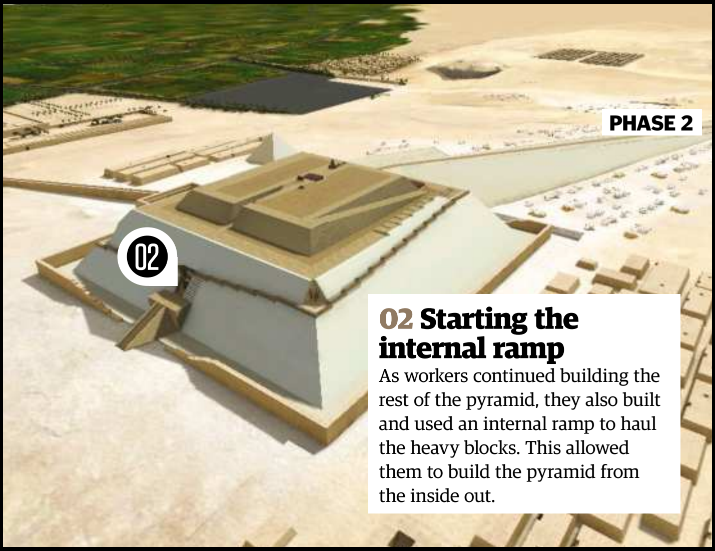
> "The structure that was symbolic on so many levels"

How to build a pyramid

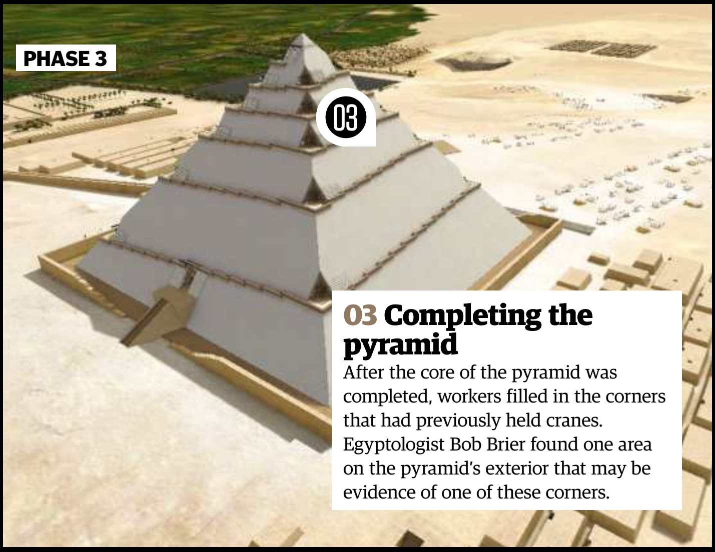
One theory, posited by Jean-Pierre Houdin, suggests two ramps were used...



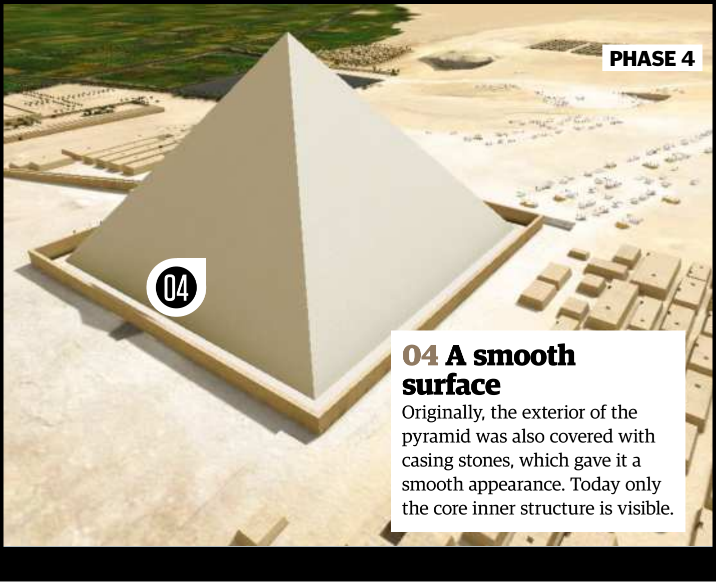
01 The pyramid base
According to Houdin, the pyramid's base was built using an external ramp until the base reached a height of about 60 metres. Workers then slowly broke down the external ramp and used its blocks to build the rest of the pyramid.



02 Starting the internal ramp
As workers continued building the rest of the pyramid, they also built and used an internal ramp to haul the heavy blocks. This allowed them to build the pyramid from the inside out.



03 Completing the pyramid
After the core of the pyramid was completed, workers filled in the corners that had previously held cranes. Egyptologist Bob Brier found one area on the pyramid's exterior that may be evidence of one of these corners.



04 A smooth surface
Originally, the exterior of the pyramid was also covered with casing stones, which gave it a smooth appearance. Today only the core inner structure is visible.

©Corbis

Pyramids of a polymath

Once a man, then a god, the multi-talented Imhotep helped design the very first pyramid and rose to prominence as a legend of medicine and architecture

Imhotep is one of Ancient Egypt's most intriguing characters. Attributed with being one of the first physicians to step out of the shadow of antiquity, the low-born priest and scholar even helped a pharaoh design and construct the first true pyramid on Egyptian soil. Yet, after all those achievements in life, fate had a far more pivotal role for him in death. His accolades became legend, and in an age when gods walked on earth as kings, Imhotep was reborn a deity revered by and assimilated into many a culture.

He may have been immortalised on the silver screen in the 20th century as an occult priest with a thirst for vengeance and immortality, but the reality we can discern from the records of the earliest of the Egyptian eras reveals a very different man – someone upon whom immortality was thrust, long after his consent could have been obtained.

> Some followers initially confused Imhotep with the Thoth, the Egyptian god of archaeology, maths and healing

Records surrounding Imhotep's earliest years are patchy, but estimates place his date of birth in the vicinity of 2650 BCE. His father is said to have been a man named Kanofer, who was a celebrated architect; his mother is said to have a woman called Khreduonkh from the province of Mendes. The particulars of his childhood and his ascent into young manhood remain shrouded in even deeper layers of mystery, but it's clear that, at some point in the early years of King Djoser's reign, the young man was rising in prominence. A veritable polymath, Imhotep became famed for his intellect. He worked as a scribe and learned his trade as an engineer, two careers that would do him well in the court of the pharaoh. He also turned his attention to medicine, and it was in this field that Imhotep forged just one of his many legacies.

The Edwin Smith Papyrus, so named after the dealer who purchased it in 1862, is purported to be based on the works and cases of Imhotep himself and describes in incredible detail the types of procedures performed on patients in the age of the Old Kingdom. The document itself, a rarity considering it depicts applicable medicine rather than arcane treatments also attributed to the era, was written around 1700 BCE, but is likely based on medical practices performed a thousand years previous. It describes around 48 procedures, ranging from the treatment of head traumas to tumours and spinal issues. Whether this document was truly based on Imhotep's own work or simply inspired by his legend isn't clear, but his medical genius was undisputed and would drive his later deification.

However, it should be said that Imhotep was not a man of pure science in a world that clung to magic and superstition. To the Ancient Egyptians, magic and science were one, and Imhotep is as likely to have studied and conducted practices as a sage as he would have as a physician. Imhotep was

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"A veritable polymath, Imhotep became famed for his intellect"

IMHOTEP

c. 2650-2600 BCE

Brief Bio

Imhotep is famed for being one of very few commoners to have been afforded divine status after his death. As an architect, engineer, physician, high priest of the sun god Ra and chancellor to the pharaoh Djoser, Imhotep reached a status rarely achievable outside the ruling elite. Pyramids of his design still stand today in Sakkara.

A king's skyward ambitions

As with Imhotep – the man with whom Djoser has become so closely associated – the Third-Dynasty king is a figure steeped in mystery. He is sometimes attributed with founding said dynasty, however, whether he actively established a distinction between the last kings of Egypt and himself or not, his desire to build new monuments and tributes contrasts the instability of the First and Second Dynasties.

Even Djoser's parentage remains shrouded in mystery. Queen Nimaethap is mentioned on a jar sealing relating to King Khasekhemwy, the last monarch of the Second Dynasty, so some historians have taken this to mean Nimaethap and Khasekhemwy are in fact Djoser's parents. A number of historians have also argued over the length of Djoser's reign, but most agree that he ruled for just under three decades. In that time, Djoser funded and commissioned the first pyramid ever built on Egyptian soil. A colossal undertaking at the time, the creation of the Step Pyramid at Sakkara suggests that Djoser's kingdom was not only substantially solvent at the time, but also relatively peaceful. Wars – both domestic and foreign – empty treasuries, so it's unlikely Djoser was engaged in any significant conflicts during his time as king.

a radical thinker, but he was still a product of the time in which he lived.

Those early cinematic depictions of Imhotep as a maniacal holy man may have sent chills down the spines of audiences, but that fictional detail has roots in reality, too. Religion was a key part of Ancient Egyptian life – the actions, wisdom and favour of the gods permeated every facet of life, so it seemed appropriate that the inquisitive mind of Imhotep would find intellectual refuge in the church. He entered the church of Ra – the Sun god often linked with the local deity equivalent known as Atum – and quickly rose to the position of High Priest. The city of Memphis was the capital at the time, and the home of the pharaoh himself – it would have remained the seat of power in the Third Dynasty, but Heliopolis (the birthplace of the Church of Ra) would have likely been the religious epicentre of the country.

Whether it was due to his prowess as a scribe, a physician or a budding engineer, Imhotep eventually found himself rubbing shoulders with people from high places in King Djoser's court. The Third-Dynasty monarch was keen to memorialise the legacy of his royal house and reign long after his death. He wanted a necropolis that would last forever, and it soon became apparent Imhotep's technical mind was the perfect tool for the job.

Imhotep rose through the ranks of Djoser's court, eventually ascending to one of the very highest positions any man, commoner or noble could attain under the king: vizier. As vizier, Imhotep served as one of the king's most trusted advisors. He helped oversee huge swathes of office, from religious quandaries to matters of state, and had influence in areas such as the treasury, the maintenance of agriculture across the land and the Egyptian judicial system. It was a position of utmost power, and the king was quick to put every facet of Imhotep's intellect to good use.

Djoser then tasked Imhotep with designing a tomb fit for a monarch under the gods, a testament to his rule that would stand tall above all. Prior to this, kings and queens had been buried in relatively simple structures known as *mastabas*, which were usually rectangular in shape and flat-roofed with sloping sides. Imhotep's answer would be radical: a step pyramid that soared to 62 metres in height and was constructed from stone and limestone. This type of pyramid differs from the those found in later dynasties due to the sharp angles of its design (the 'step' comes from the stacking of six *mastabas*, each one decreasing in size from bottom to top). On the scale Imhotep planned, it was revolutionary concept, and in execution, it was said to be unparalleled.

> As with many of the gods, Imhotep began to draw his own cult of followers throughout the centuries

Statues and other depictions of Imhotep often show him seated and studying

Defining moment
Djoser becomes king
2670 BCE

Believed to have inherited the crown from Khasekhemwy or possibly Nebka – both of whom are associated with the Second Dynasty – King Djoser was one of the founders of the more prosperous age of the Old Kingdom. While he would go on to commission the impressive step pyramid at Sakkara (Saqqara), the monarch initially wanted to build a tomb at Abydos, but the project was ultimately left unfinished. King Djoser would go on to serve for just under three decades as king of Egypt.

Defining moment
Step Pyramid completed
2611 BCE

After years of planning and construction, the Step Pyramid and eventual tomb of King Djoser is finally finished. The pyramid itself was built by using ramps to shift the heavy stones into position, while tools such as large-scale rollers were employed to roll the stones into their proper places. The rough stone used to form the core was likely gathered from the Great Trench being dug around the pyramid. The inside of the pyramid is been designed to resemble the pharaoh's palace so that the afterlife will seem more familiar to him when he ascends.

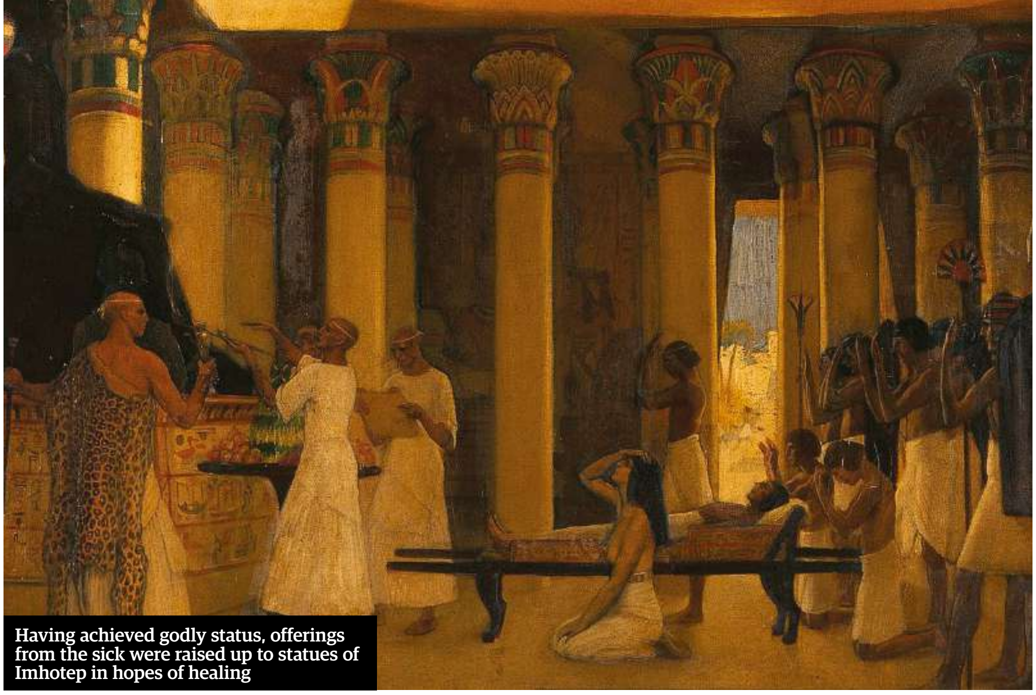
Timeline

2650 BCE
Imhotep is born
Historians and Egyptologists disagree on when Imhotep was born, but around 2650 is the most commonly agreed upon time frame. Ankhtow, a suburb of Memphis, is believed to be his birthplace.

2630 BCE
Joining Djoser's court
After some time making a name for himself in Memphis as a priest, a scribe, a healer and a physician, the multi-talented Imhotep joins the royal court of King Djoser.

2630 BCE
Work begins on step pyramid
As part of his grand vision for a sprawling necropolis at Sakkara, King Djoser commissions Imhotep to build a tomb worthy of an Egyptian king and reaches up to the heavens.

2600 BCE
The death of King Huni
The final (and oft contested) ruler of the Third Dynasty is believed to have died in or around the same year as Imhotep. While some texts refer to a funeral temple for Huni, Imhotep's final resting place remains a mystery.



Having achieved godly status, offerings from the sick were raised up to statues of Imhotep in hopes of healing

Forming part of Djoser's sweeping Necropolis complex, the king finally had a worthy tomb. When Djoser died, he was interred in the pyramid that Imhotep had overseen as architect. But what of Imhotep himself? After his incredible accolades in the court of Djoser, Imhotep continued in the service of the monarchs who followed and is believed to have died during the reign of King Huni, the last pharaoh of the Third Dynasty. As to what Imhotep did during the those final years, it seems history lost track of the polymath priest. His tomb has never been found and some historians have speculated that it's buried somewhere in Sakkara.

Such were his achievements in medicine, architecture, scripture and philosophy, it seemed the mark of Imhotep would long outlive the man himself. Imhotep's long-standing association with King Djoser led to his name being inscribed on one of Djoser's statues, but his presence was far more palpable than a simple footnote in the history of a king.

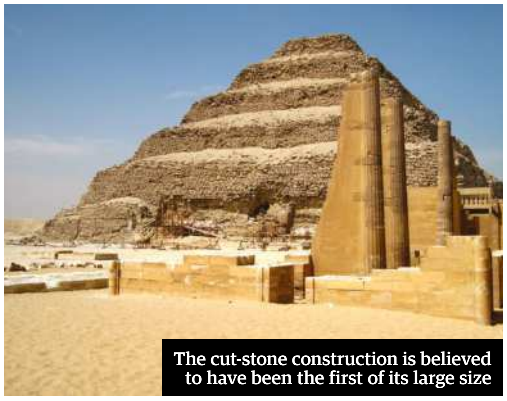
Around a century after his death, Imhotep's reputation as an impeccable physician, sage and healer saw him reborn as a demigod of medicine. Two thousand years later, ideas of his saintly prominence gained momentum and he was fully deified. He was worshipped by various cults of Imhotep during the 26th and 27th Dynasties and followers would pay tribute at a temple that was built in his honour just outside Memphis.

> No record of Imhotep's image remains but there is Ptolemaic-era statue attributed to him in The Louvre, Paris

Imhotep's deification was spurred on by the Persian conquest of Egypt in around 525 BCE, when the god Nefertem was replaced in the great Memphis triad of gods alongside Imhotep (as well as Ptah, the creator of the universe, and Sekhmet, the goddess of war and pestilence). Then, when the Greeks conquered Egypt in 332 BCE, Imhotep's symbolism in healing and medicine became intertwined with the Greek equivalent, Asclepius. This increased his fame and following in the wake of the Ptolemaic era.

Imhotep's cult reached its zenith in Greco-Roman times, during which his temples in Philae, Memphis and along the Nile were often packed with those seeking healing at the hands of the god-physician. His influence even stretched as far as the Roman Empire; emperors Claudius and Tiberius both had inscriptions praising his prowess in their Egyptian temples.

But it wasn't just as a symbol of healing that Imhotep was glorified. His godly accolades were commonly confused and merged with that of Thoth (the god of writing and knowledge) and because of this, he grew to be venerated as a patron of the scribes. In fact, it is said that some scribes would pour a few drops of water in libation to Imhotep before creating a written record. In short, Imhotep's many talents followed him into an afterlife of fame, and his legacy ultimately transcended the actions of an ambitious everyman who simply dared to do more than had been done before.



The cut-stone construction is believed to have been the first of its large size

The pyramid at Sakkara

The choice to use regular stone for King Djoser's step pyramid was not revolutionary in itself, but using stone blocks to construct something as huge as a pyramid was unheard of. In order to hold the structure in place, Imhotep used fine limestone (an expensive commodity at the time) with packing in between. He incorporated the basic design of the traditional flat-roofed *mastaba*, but instead made each section a square rather than a rectangle. Each 'step' was constructed by building in accretion layers that leant inwards towards the core of the structure (rather than the flat, horizontal building technique used on *mastabas*) – this design choice was crucial, since the structure needed to be strong enough to hold itself in place without imploding. Imhotep added a passageway within the structure that led directly to the sarcophagus chamber, as well as a complicated network of tunnels and chambers. The pyramid itself was created as a means of holding and protecting the king's remains and treasures, but it also formed a vital part of a larger complex. A number of buildings, statues and pillars were constructed on site, all of which were surrounded by a stone wall that reached 10.7 metres (35 feet) high and was encased in limestone. The treasures of the king – 36,000 vessels filled with precious metals – were lowered from above into chambers beneath the surface. The chamber only had one opening, which was closed off with a 3.5 ton block.

Defining moment

Biographical papyrus written

200 CE

A papyrus originating from the Egyptian temple of Tebtunis is written. Transcribed in demotic script, it depicts a mixture of fantastical details and more realistic events from ancient history. For instance, it makes reference to Imhotep and his design of the Step Pyramid, as well as his close association with King Djoser. However, the story also mixes in Imhotep's deity-father Ptah, his purported biological mother Khereduankh and a little sister called Renpetneferet. It also, rather bizarrely, includes a battle between the Egyptians and the Assyrians, with Imhotep battling an Assyrian sorceress with magic.

2600 BCE

Imhotep passes away
Information surrounding the final years and ultimate death of Imhotep are sadly vague, but rumours persist that he built his own tomb and that it remains undiscovered to this day.

2500 BCE

Imhotep is made a demigod
Around a century after his supposed death, Imhotep's accolades in life lead to him being elevated in status to become a demigod of healing and medicine.

332 BC

Greek conquest of Greece
Around 200 years later, Macedonian-born conqueror Alexander the Great claims Egypt. The new Ptolemaic dynasties that followed also adopted Imhotep's image into their own cultures.

1862

Edwin Smith Papyrus discovered
The Edwin Smith Papyrus, rumoured to have been written based on the findings and practices of Imhotep, is purchased. It contains records of medical ailments of the time, as well as spells and incantations.

LIFE & DEATH

Discover how everyday life and even death was guided by religious beliefs and practices

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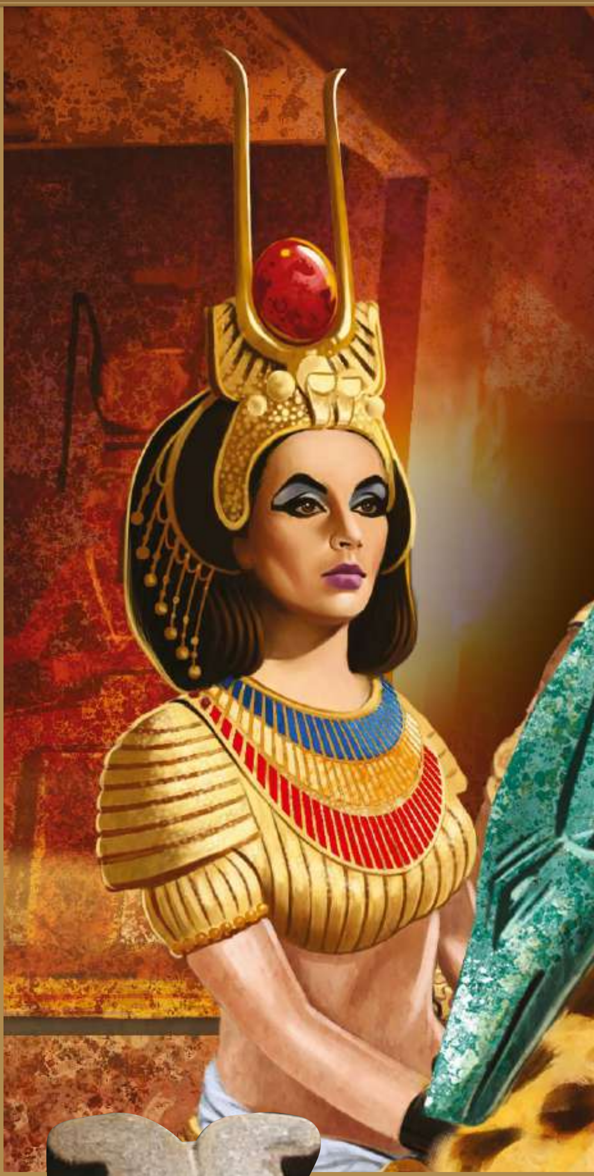

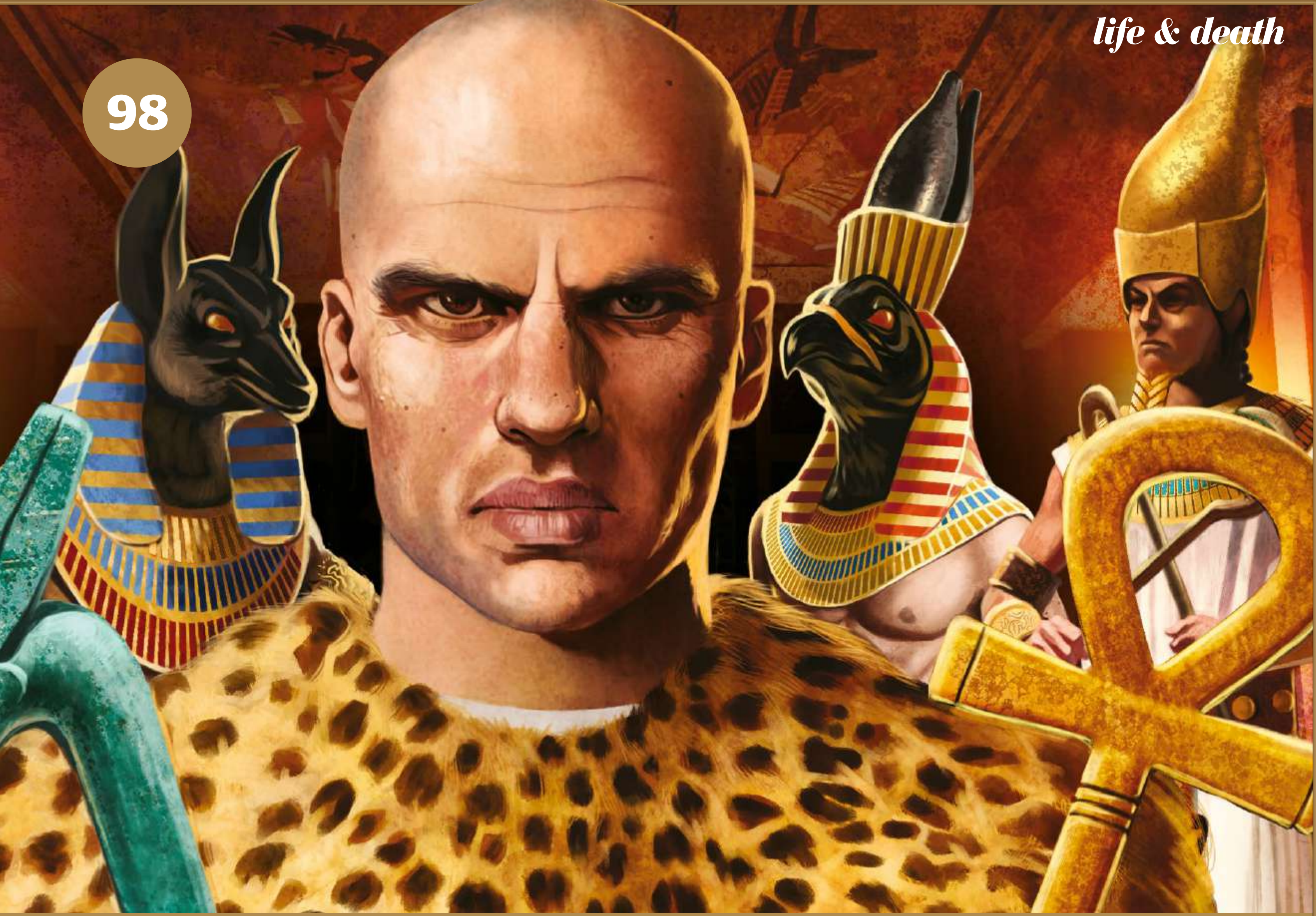

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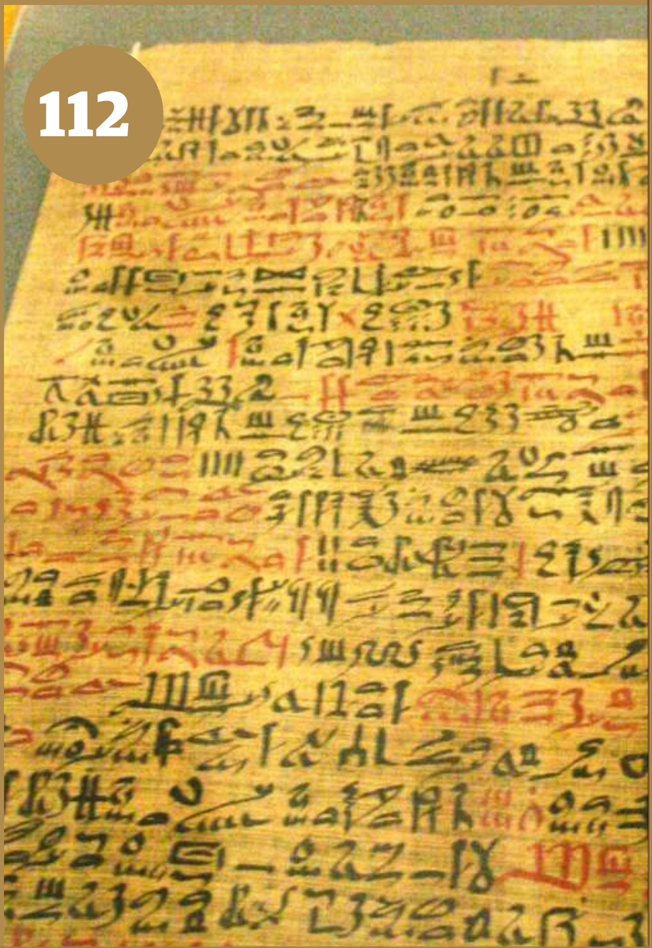

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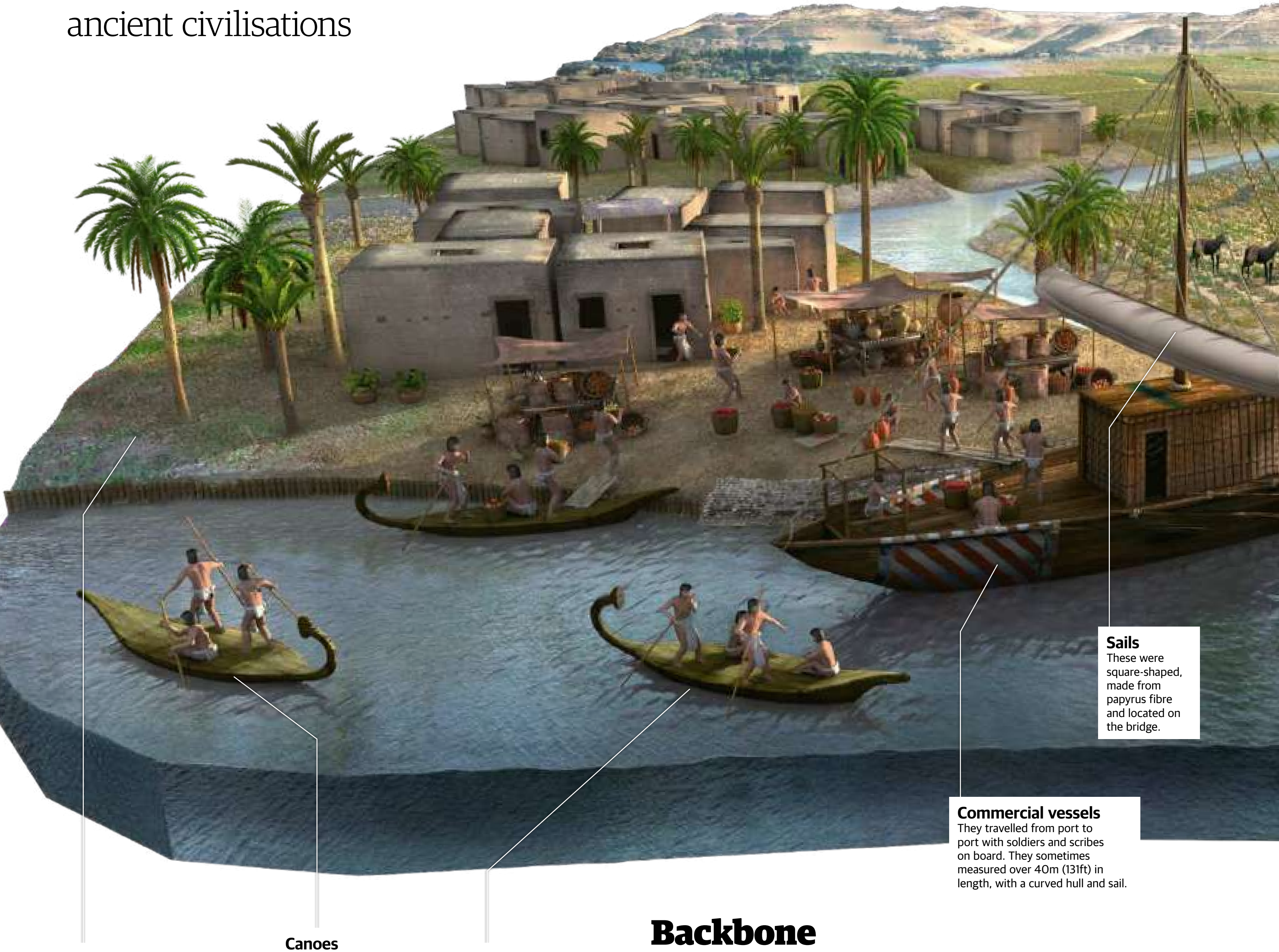
Inside the Nile: 'Mother of all men'

Tour the iconic waterway that was the lifeblood of one of the world's most powerful ancient civilisations



Sails
These were square-shaped, made from papyrus fibre and located on the bridge.

Commercial vessels
They travelled from port to port with soldiers and scribes on board. They sometimes measured over 40m (131ft) in length, with a curved hull and sail.

Life on the banks
The river was absolutely vital to the Egyptian economy, although its huge floods affected the settlements on its banks.

Canoes
There were different types, made from reeds or papyrus. They served as a means of exchange between traders and consumers.

Power
In the canoes, passengers either sat rowing or remained on foot, pushing with long poles.

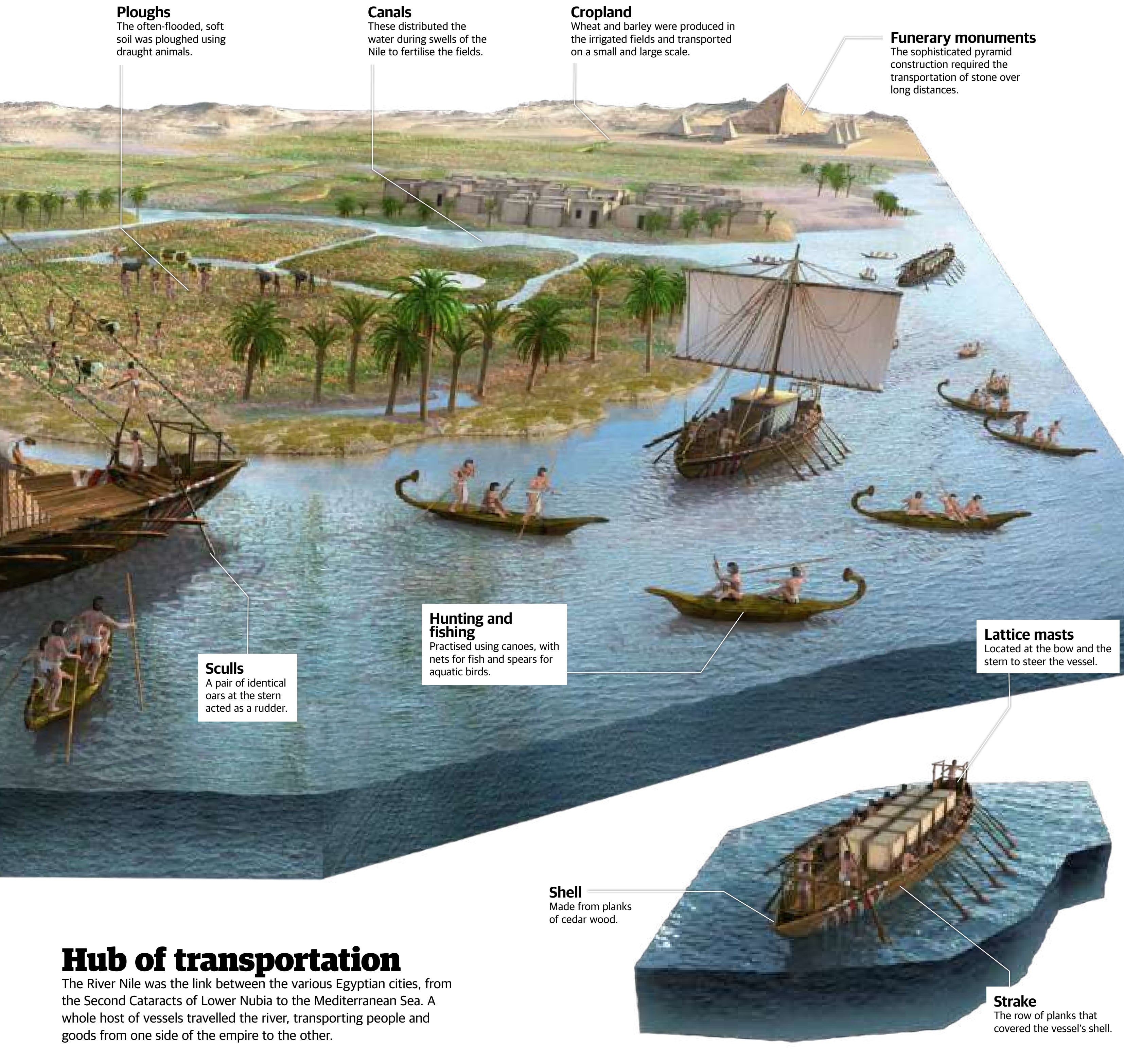
Backbone

Over the centuries, the Egyptian civilisation gradually settled along the banks of the final 1,300km (808mi) of the Nile. Farms dominated the landscape around its banks, and its waters were the primary means of communication. For daily tasks, small canoes were used; however, for trade or transporting passengers, strong sail boats were employed.

It's impossible to overestimate the importance of the Nile to the Ancient Egyptians. The 7,507-km (4,665-mi) river literally brought life to an arid desert wasteland. Its fertile valleys provided protection from the harsh elements, its waters teemed with fish and fowl, and the Nile's seasonal floods deposited mineral-rich silt from the highlands to feed Egyptian soil, allowing for unprecedented agricultural abundance.

This life-giving river, known as Hapi in the age of Ramesses, was rightfully worshipped as a god. It was the chief mode of transporting shipments of grain, gold and weaponry across the length of the empire. Ramesses even placed his mortuary temple, the Ramesseum, along the banks of the upper Nile in Thebes. It doubled as a reserve bank and could hold 350 boatloads of grain, ready for shipment in the event of a poor harvest.

The pharaohs relied on astronomer priests to read the stars in order to gauge the timings of seasonal floods, which were essential for agriculture. Ramesses used marker stones in the upper Nile to carefully record river levels; he would then send word to the Delta cities when the waters began to swell. This was a cause for celebration and people sang praises to the gods during epic festivals that marked the start of the floods.


Ploughs
The often-flooded, soft soil was ploughed using draught animals.
Canals
These distributed the water during swells of the Nile to fertilise the fields.
Cropland
Wheat and barley were produced in the irrigated fields and transported on a small and large scale.
Funerary monuments
The sophisticated pyramid construction required the transportation of stone over long distances.
Hunting and fishing
Practised using canoes, with nets for fish and spears for aquatic birds.
Sculls
A pair of identical oars at the stern acted as a rudder.
Lattice masts
Located at the bow and the stern to steer the vessel.
Shell
Made from planks of cedar wood.
Strake
The row of planks that covered the vessel's shell.

Hub of transportation

The River Nile was the link between the various Egyptian cities, from the Second Cataracts of Lower Nubia to the Mediterranean Sea. A whole host of vessels travelled the river, transporting people and goods from one side of the empire to the other.

Life on the banks of the Nile

As one of the best documented ancient societies the world has ever known, daily life in Ancient Egypt is remarkably well understood

Human culture has been a part of the Nile Valley as far back in time as 6000 BCE. That's long before the time period commonly thought to have seen the dawn of the Ancient Egyptian civilisation at about 3000 BCE. At this time, the various communities of the Nile Valley were brought together by King Narmer. The society that emerged would continue to develop for several millennia, all the way up until 30 BCE, when Egypt was in the throes of being colonised by the Roman Empire.

Like so many cultures around the world, the beginning of human settlement is typically profoundly dominated by proximity to a river. The River Nile, one of the most famous rivers in the world, became the lifeblood of the people of Ancient Egypt, who built their lives around its ebbs and flows. The Nile irrigated the land for arable farming, offered plentiful fishing and was equally plentiful in supplying the material needed for papyrus, in the form of the reeds that grew in the river. The Nile also made travel up and down Egypt very manageable, as well as facilitating access toward sub-Saharan Africa and north into the Mediterranean for trade. The nation's wealth and prosperity rested on the river's shoulders.

Our understanding of daily life in Ancient Egypt has been shaped so very powerfully by the discoveries made by archaeologists since the early 19th century. Such evidence has granted us a huge degree of understanding of a culture that's immensely remote from our own, and yet shows parallels with how we live today.

Key to Egyptian sensibility was an emphasis on order as a means of negating chaos, an ethos established through centuries of tradition and evidently not keenly challenged or subverted. For the highly developed religious culture of Ancient Egypt, this concept of harmony was embodied by the figure of the goddess Ma'at. Throughout its history, daily life in Ancient Egypt was informed and influenced by this strong relationship with religious practice.

> For all of its commitment to order, Ancient Egypt experienced its own 'dark ages', which was characterised by conflict

The Egyptian army recruited foreign mercenaries to its ranks. Many of these mercenary soldiers were Nubians

Establishing social order

Ancient Egypt evolved a formalised class structure, which was the foundation of social order. A rigid social hierarchy denied what we would now call upward social mobility, which was not a common experience.

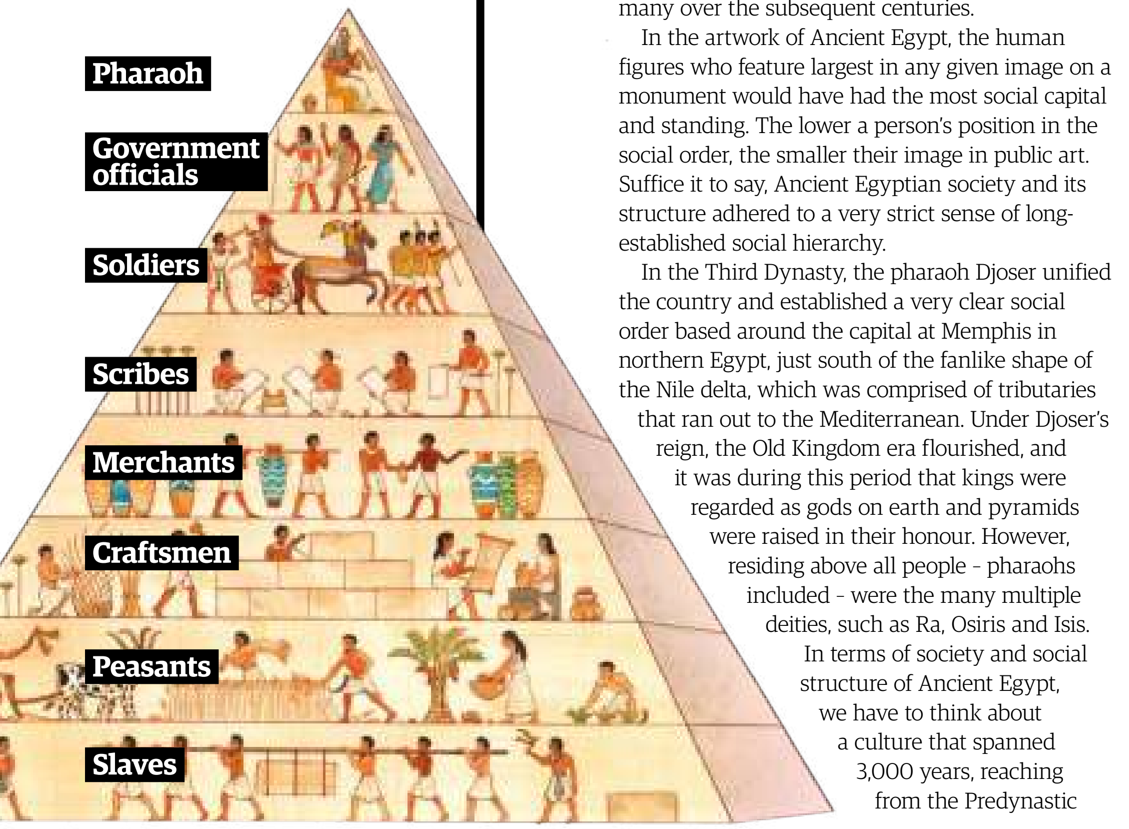
History records that individuals in society could be defined by seven classes. At the top of the pyramid was the pharaoh, who was considered divine, and below him were the further seven levels of society: the priests and officials, and then below them the warrior class. Below the warriors were scribes, and below them merchants then craftsmen. Below craftsmen were farmers and the boatmen that traversed the River Nile and its tributaries. Critically, we must recognise that the culture also comprised slaves (typically former prisoners of war), as well as marginalised individuals and groups existing on the fringes of the mainstream.

The most acute expression of the social order was manifest in the money earned by the different professions. Practitioners of medicine were among the best paid. In contrast, craftsmen earned meagre sums.

Taxation is a central feature of nation states with a developed infrastructure, and Egypt was no exception, with administrative emphasis crucial to its smooth running.

The pharaoh served as head of state and appointed the great treasurer. Evading tax payment incurred severe punishment.

The nation's clearly defined social hierarchy was underpinned by long-standing laws and administrative structures. One of the binding laws was the law of Tehut. Tehut was the god of wisdom, and the culture's broader sensibility adhered to a mood of integrity and personal responsibility.



Society & social structure

In his immense scholarly work *The Histories*, the Greek scholar Herodotus wrote a book exclusively about Egypt set in the years between 664 BCE and 525 BCE. This material has been valuable to our modern-day understanding of life in everyday Egypt. Herodotus writes that "concerning Egypt itself I shall extend my remarks to a great length, because there is no country that possesses so many wonders, nor any that has such a number of work which defy description…" Clearly, Herodotus captures something of the enduring fascination with Ancient Egypt in this excerpts from his work.

Interestingly, our insights and knowledge about Ancient Egypt have been informed by the written reports of Greek and Roman scholars who travelled to Egypt between the fifth century and the second century BCE. Key writers include Hecateus of Mitetus in 500 BCE. Hecateus's work *Periodos Ges* (alternative title, *Periegesis*, meaning 'Tour of the World') offers useful insights into what daily life was like. He writes that Egypt is "the gift of the Nile" in a phrase that ably articulates the fascination that has endured for so many over the subsequent centuries.

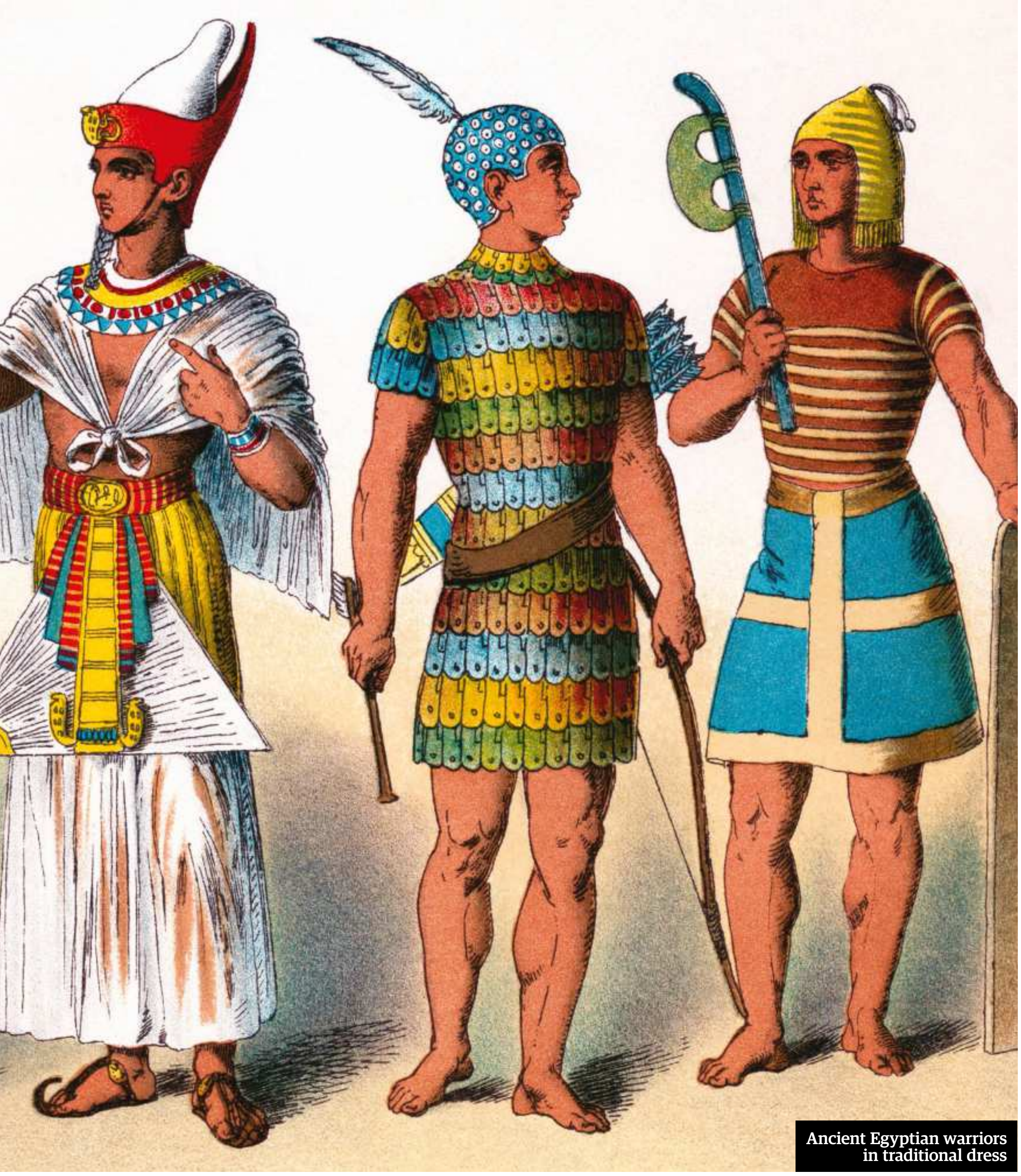
Tombs from the Middle Kingdom period would include models depicting features of daily life, such as farm scenes

In the artwork of Ancient Egypt, the human figures who feature largest in any given image on a monument would have had the most social capital and standing. The lower a person's position in the social order, the smaller their image in public art. Suffice it to say, Ancient Egyptian society and its structure adhered to a very strict sense of long-established social hierarchy.

In the Third Dynasty, the pharaoh Djoser unified the country and established a very clear social order based around the capital at Memphis in northern Egypt, just south of the fanlike shape of the Nile delta, which was comprised of tributaries that ran out to the Mediterranean. Under Djoser's reign, the Old Kingdom era flourished, and it was during this period that kings were regarded as gods on earth and pyramids were raised in their honour. However, residing above all people – pharaohs included – were the many multiple deities, such as Ra, Osiris and Isis.

In terms of society and social structure of Ancient Egypt, we have to think about a culture that spanned 3,000 years, reaching from the Predynastic period through to the time of Ptolemy. Across the three millennia of this period, we can identify five key elements that shape our understanding of the society: kinship (connection between blood relatives and through marriage), location (connection between people born in the same place or who live in the same place), gender (connection between people of the same sex and sexual orientation), age (connection between people of the same age), and social class (connection between people born into the same social standing).

At the very highest rung of the social ladder, the pharaoh was regarded as a living god, in particular a manifestation of the earthly embodiment of Horus, the god of order, who was the son of the goddess Isis. The pharaoh was responsible for maintaining order and ensuring that the gods were kept happy with human endeavour. It's also unsurprising that the pharaoh's interests and responsibilities included military campaigns. The women at the centre of the king's life were also accorded great status. One of the most famous royal marriages was that of Akhenaten and Nefertiti. In cartouches dated to the Second Intermediate Period, the name of a king's wife would be represented. A number of Old and Middle Kingdom wives of kings were buried in a pyramid.



Ancient Egyptian warriors in traditional dress

“The women at the centre of the king’s life were also accorded great status”

Below the king on the social pyramid was the ruling elite, comprised of nobles and priests. There may have been family connections between the monarchy and the elite strata, although not in every case. A famous exception to this rule was Imhotep; an elite scribe educated in mathematics, writing, medicine and architecture; he rose through the ranks to become an adviser to Djoser.

The children of a high-level government official in Ancient Egypt could expect a rather different kind of upbringing and life in general, compared to the child of any other social order beneath them on the social hierarchy. Typically, Egyptian writing was the product of the elite class and was indicative of their life experiences. Below the elite were the craftsmen and physicians of Egyptian society – these comprised what we would today consider the middle class.

At the other end of the scale, manual labour was seen as less worthy of respect than work that involved writing or arithmetic. At the lowest rung on the social order were farmers – the class that comprised most people in Ancient Egypt. Their lives are rarely recorded in extant Egyptian texts. However, we have been able to develop a sense of their lives through archaeological work on funerary objects. Weaving throughout society were slaves, who occupied the lowest of the social classes yet played an integral part in the life of the upper classes. It seems the idea of freedom, as we might understand it today, was not embraced.

Yet, through surviving writings and information available on its numerous public architecture, monuments and art, we get some sense of a culture that saw women enjoy some kind of social mobility, albeit within the parameters of an overriding patriarchy. Perhaps it is surprising, then, that the wife of a pharaoh would have often been directly involved in military matters and helping influence important policies. Given the country’s emphasis on order in its multifarious contexts, Egyptian males’ ‘openness’ to elite women’s freedom runs counter to the stress so clearly placed on marriage and motherhood.

A granite scribe statue of the vizier Paramessu

Day in the life of a vizier

A vizier’s day was replete with administrative tasks and a lot of people management

The importance of public administration was of great emphasis in this time. Overseeing these administrative systems were viziers, provincial governors and senior officials, which were positions occupied by the nobility.

07:00 am

Get myself dressed in that splendid new linen robe. Breakfast of fruit and bread and then see that son heads off to school for scribal study. Meeting with pharaoh first thing to update him on new public building programme. Don’t forget writing instruments and papyrus to make shorthand notes with.

09:00 am

Work from office in Thebes attending to budget for current public works building programme. Meet with provincial governor to discuss administrating records for the forthcoming harvest. A junior scribe sits in on the meeting to record notes for the governor. He’s not a fan of writing at all.

13:00 pm

Meet with the chief of police for a monthly update on arrests and other related issues. The chief explains that his men need stronger legal powers as the border country to the west has become highly susceptible to criminal activity. Must be sensitive to those more marginalised groups who aren’t endeavouring to exploit our city’s opportunities.

17:00 pm

Write up notes of the day’s meetings and then take a meeting with the Medjay bowmens’ chief archer. We discuss required new resources and information about ongoing threats to the safety of the public. I consult a legal document to remind the chief archer of the protocol when making an arrest.

18:00 pm

Unexpected call out to the riverside to supervise arrival of a delegation of priests from Memphis for a festival. Catch up with my daughters. Spend the evening with my wife and my brother. Delighted by his rendition of the New Kingdom poem The Flower Song – a real favourite of ours.

Home life

Through the trail of archaeological excavations, we have come to gain an insight into some class-based variations in the rhythms and patterns of life in an Ancient Egyptian home.

An ordinary working Egyptian man, such as a farmer, would have had no slaves at the home to help him prepare for the day ahead. His wife would have been responsible for preparing the children for the day. A bench would suffice as a place to eat at and the family would sit on reed mats. When the farmer went out to work on his land, his wife would typically remain at home and tend to domestic work, such as preparing food.

A farmer would have been required to take some of his harvest to the temple as payment for using the temple land. Evening meals for the family were modest. Bread and fruit would have been staples of the everyman's daily diet, and beer was a commonly consumed drink.

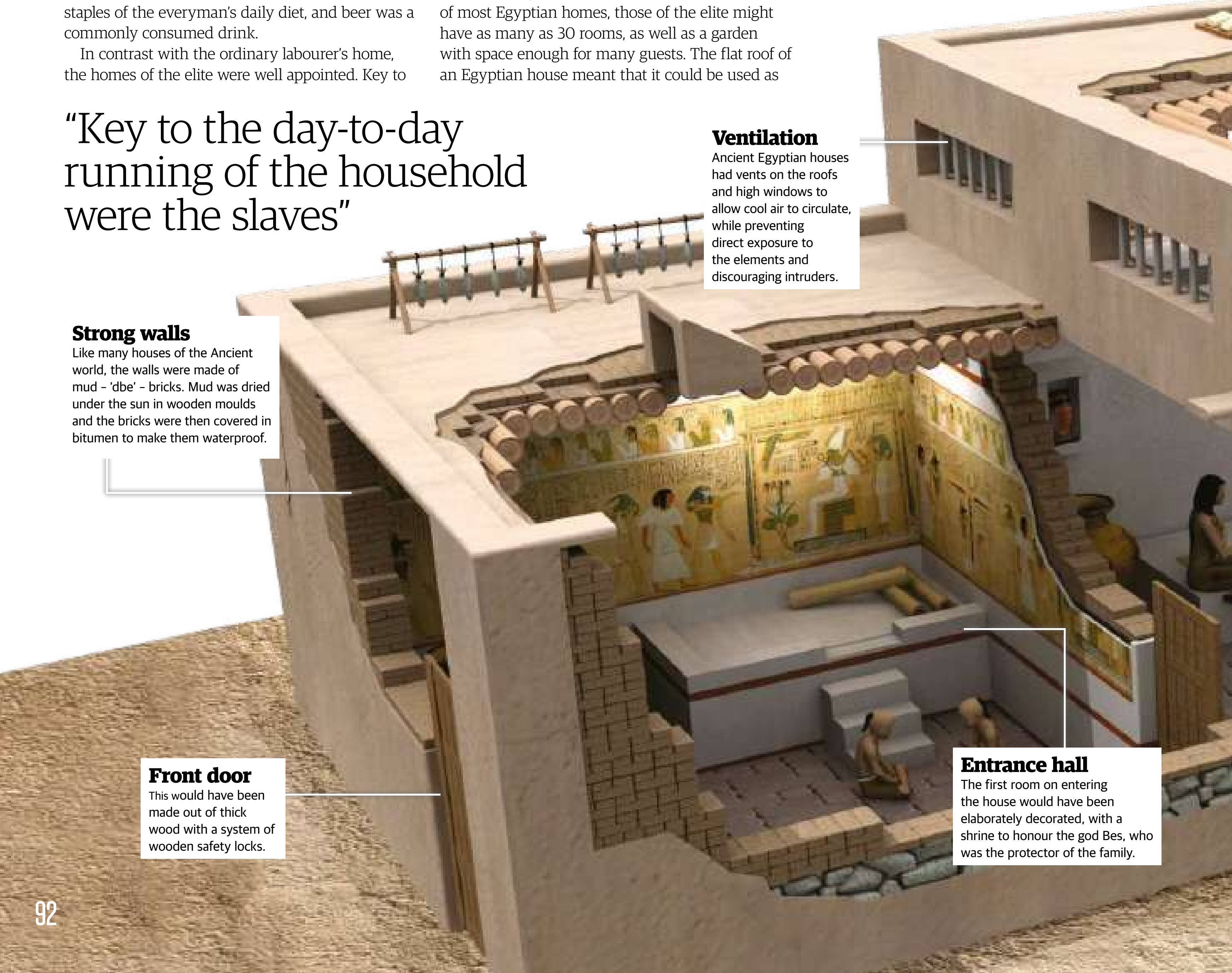
In contrast with the ordinary labourer's home, the homes of the elite were well appointed. Key to the day-to-day running of the household were the slaves, who would assist an elite man in washing and shaving for the day ahead. Husband and wife would boast a servant each to assist their morning preparations, in addition to servants who would get the children ready for the day ahead. A nobleman would also employ a man to supervise his land in terms of arable and pastoral work.

The homes of Egyptians were constructed from a combination of mud and papyrus, the climate understandably informing the kind of building materials used. However, with the Nile flooding annually, materials shifted to bricks made from clay and mud. Among so many other things that we can thank the Egyptians for, the word 'adobe', which stems from the Egyptian word *dbe*, meaning 'mudbrick' can be attributed to them.

Contrasting with the very modest conditions of most Egyptian homes, those of the elite might have as many as 30 rooms, as well as a garden with space enough for many guests. The flat roof of an Egyptian house meant that it could be used as another living space, which was especially handy for the poorest of society. They lived in single-room houses that were furnished primarily with mats and perhaps a single stool. To keep the sunlight and heat at bay, windows would be covered with reed mats. There was also no running water, so it would have been sourced from a local well.

For all of its seeming remoteness from our own lives, the daily lives of a typical family in Ancient Egypt revolved around an extended family, particularly among the rural communities. Away from these rural communities, in a city like Memphis or Thebes, houses were in close proximity to each other. Given the commonality of shopkeeping, the ground floor of a property was often used for business, while home life was conducted upstairs.

> "Key to the day-to-day running of the household were the slaves"



Ventilation
Ancient Egyptian houses had vents on the roofs and high windows to allow cool air to circulate, while preventing direct exposure to the elements and discouraging intruders.

Strong walls
Like many houses of the Ancient world, the walls were made of mud – 'dbe' – bricks. Mud was dried under the sun in wooden moulds and the bricks were then covered in bitumen to make them waterproof.

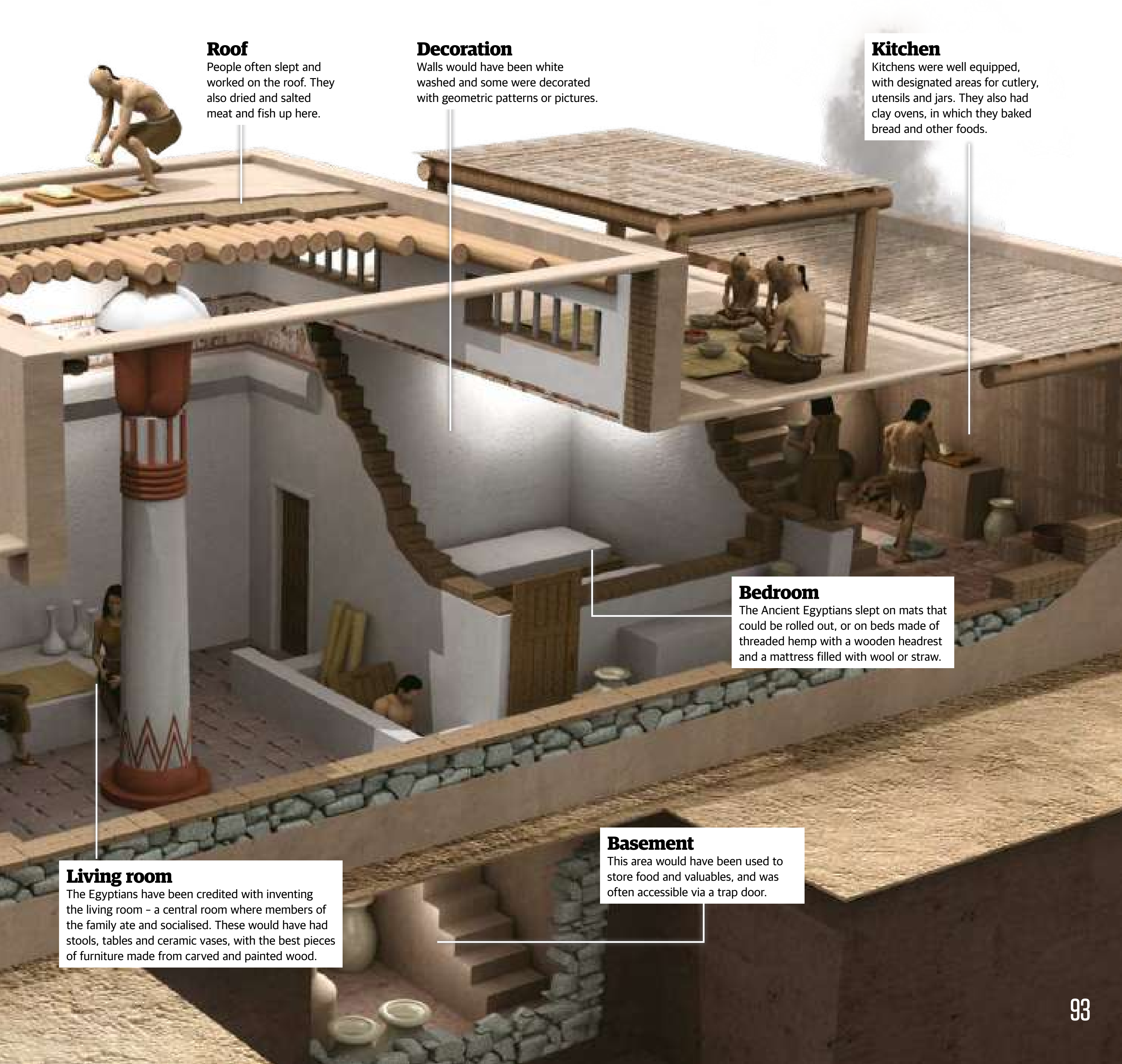
Front door
This would have been made out of thick wood with a system of wooden safety locks.

Entrance hall
The first room on entering the house would have been elaborately decorated, with a shrine to honour the god Bes, who was the protector of the family.

Entertaining Egypt

Key to developing a culture's sense of identity is not just work and big-picture value systems; how the society entertains itself is also important to consider. Board games were hugely popular in Ancient Egypt, notably one game called Senet – an especially well-known and simple game that people played for more than 2,000 years. Senet simply involved throwing sticks down in order to determine how far a player's game piece would advance along a board. For the pharaohs, hunting was the king's sport just as it once was in Britain. Then there was the Nile itself, which was the perfect venue for swimming and sailing. As with most, if not all, cultures, music was a key part of the creative expression in the daily life of Egyptian people. The harp and lyre were widely used instruments, and we can imagine how perhaps their love of poetry related well to their musical inclinations. Archaeologists have excavated a collection of such poems in a village named Deir el-Medina. The texts date back to the period of the New Kingdom.

Children in Ancient Egypt would typically play with small models of animals, reflecting the rurally centred lives that most Egyptians shared. It doesn't seem too wildly speculative to suggest that, as in our own culture, the forms of entertainment embraced by the people mirror somewhat the class distinctions that influenced and shaped their lives.



Roof

People often slept and worked on the roof. They also dried and salted meat and fish up here.

Decoration

Walls would have been white washed and some were decorated with geometric patterns or pictures.

Kitchen

Kitchens were well equipped, with designated areas for cutlery, utensils and jars. They also had clay ovens, in which they baked bread and other foods.

Bedroom

The Ancient Egyptians slept on mats that could be rolled out, or on beds made of threaded hemp with a wooden headrest and a mattress filled with wool or straw.

Basement

This area would have been used to store food and valuables, and was often accessible via a trap door.

Living room

The Egyptians have been credited with inventing the living room – a central room where members of the family ate and socialised. These would have had stools, tables and ceramic vases, with the best pieces of furniture made from carved and painted wood.

Lessons in educating Egypt

Mathematics

In this lesson, scribal students undertake training in accountancy protocol, record keeping and the requirements for maintaining budgets on architectural projects so as to understand income and outgoings. Don't forget to bring your scribe board and reed stem pen to make notes with.

Architecture

In this lesson, scribal students will learn the rules of proportion and scale. We will also revise rules of geometry and physics in order to identify issues in organising the movement of building materials. Key to our work will be how to record information about issues with safety on site.

Poetry

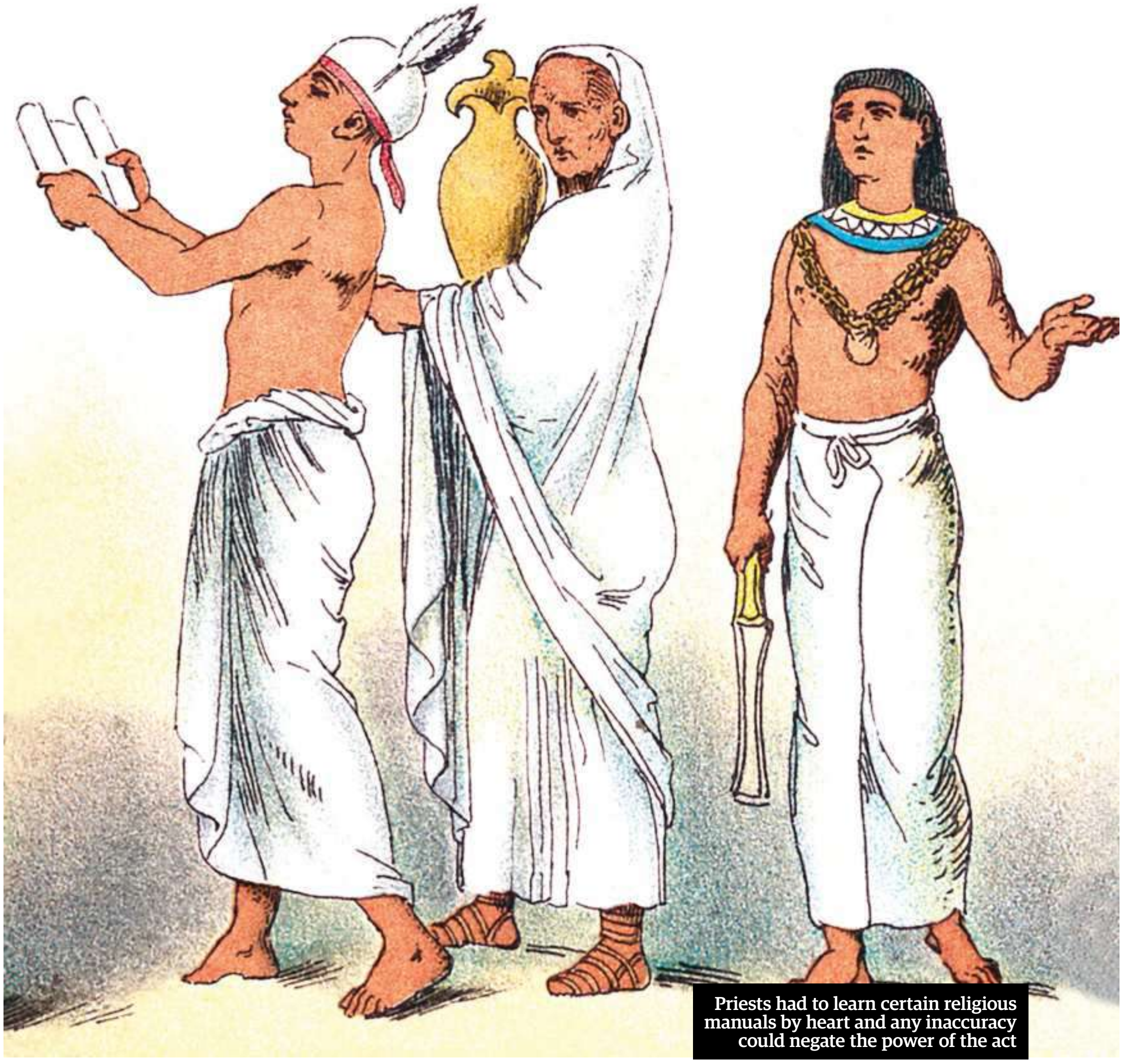
In this poetry class you will recite three poems handed down from our ancestors. In each of these poems, we can learn something of the wisdom of how to live the most full and orderly life. We will then concentrate on transcribing three new spells and three new hymns.

Hieroglyphic practice

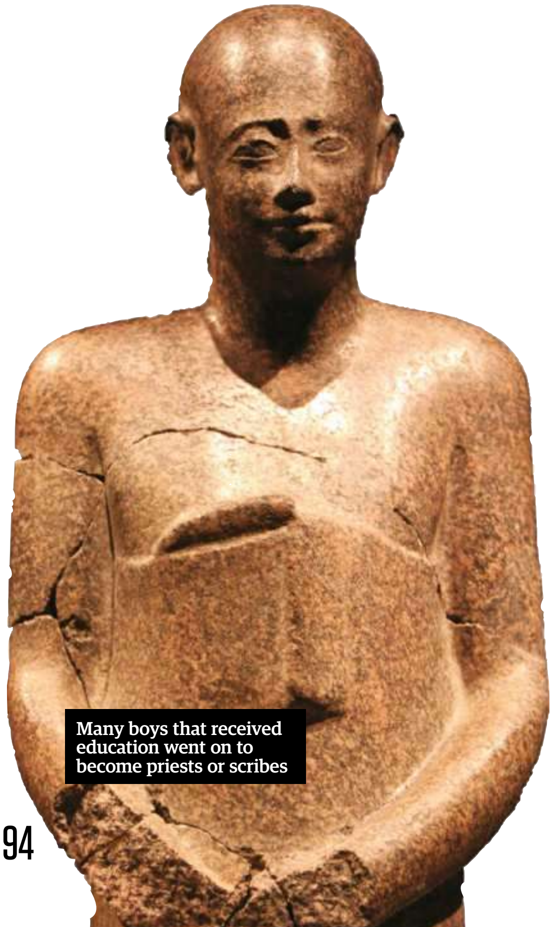
In this class we will focus attention on Demotic writing so that you can make notes quickly and then develop full documents. We will then revisit the storage of your papers in our archive of clay jars. You will be tested on how to locate an item in the archive.

Social and moral instruction

Instruction will be given by a chantress as you learn several new hymns to share with your friends, families and the wider community. You will then transcribe her instructions. In your work as successful scribes you will be required to transcribe meetings on a daily basis.



Priests had to learn certain religious manuals by heart and any inaccuracy could negate the power of the act



Many boys that received education went on to become priests or scribes

Education

Certainly, education in Ancient Egypt was regarded as a means of improving one's social standing, and formal schooling was a fundamental part of the lives of young people from the elite strata of society. However, we can also say that Ancient Egypt was a culture that recognised the more broadly enriching value of education as a way of deepening one's understanding of the world.

As we might typically expect to be the case, it was in the family unit where a child would learn and develop their value system. Boys had the opportunity to be trained in the work that interested them, but girls did not have this opportunity available to them. Education, then, would have extended to include imparting younger family members with a code of morality (with its emphasis on maintaining order at both individual and broader social levels) and training for a particular kind of work, whether agricultural, craftwork, medicine or work as an administrator. Each kind of job carried with it a certain social standing. What we know about education in Ancient Egypt is derived significantly from *The Books Of Instruction*, which offer us a fascinating insight into the dynamics of social life and the expectation of right behaviour.

Education in the home involved imparting children with a code of morality, focused on maintaining the social order

Historian J M Roberts writes that "the bureaucracy directed a country most of whose inhabitants were peasants," making the distinction between what we might call "the haves" and "the have nots". Thousands of Egyptian boys would have been educated to work as scribes (in Egyptian the word *sesh* meant 'to draw'), and a school dedicated to this was located at Thebes. However, we need to be mindful that this education was enjoyed by only a minority and that almost all Egyptians did not undertake a formal education. At this school, the students were educated in history and literature (tales, hymns and poems), as well as different kinds of writing. Students were also instructed in the disciplines of surveying, military endeavour, architecture and accountancy. Memphis

Learning how to worship and appease the gods

Because the religious instruction received from the deities was accepted, preaching as a means of converting people who did not 'believe' was unnecessary in Ancient Egypt. Festivals were a major part of religious devotion and priests were central to organising these. At the priest's school, students would be instructed in ritual, magic spells and hymns and songs as offerings to the gods.

At the school, students would not refer to one single text but instead to a variety of texts that described rituals and religious belief systems. The student would also be educated in the routines and observances of a temple.

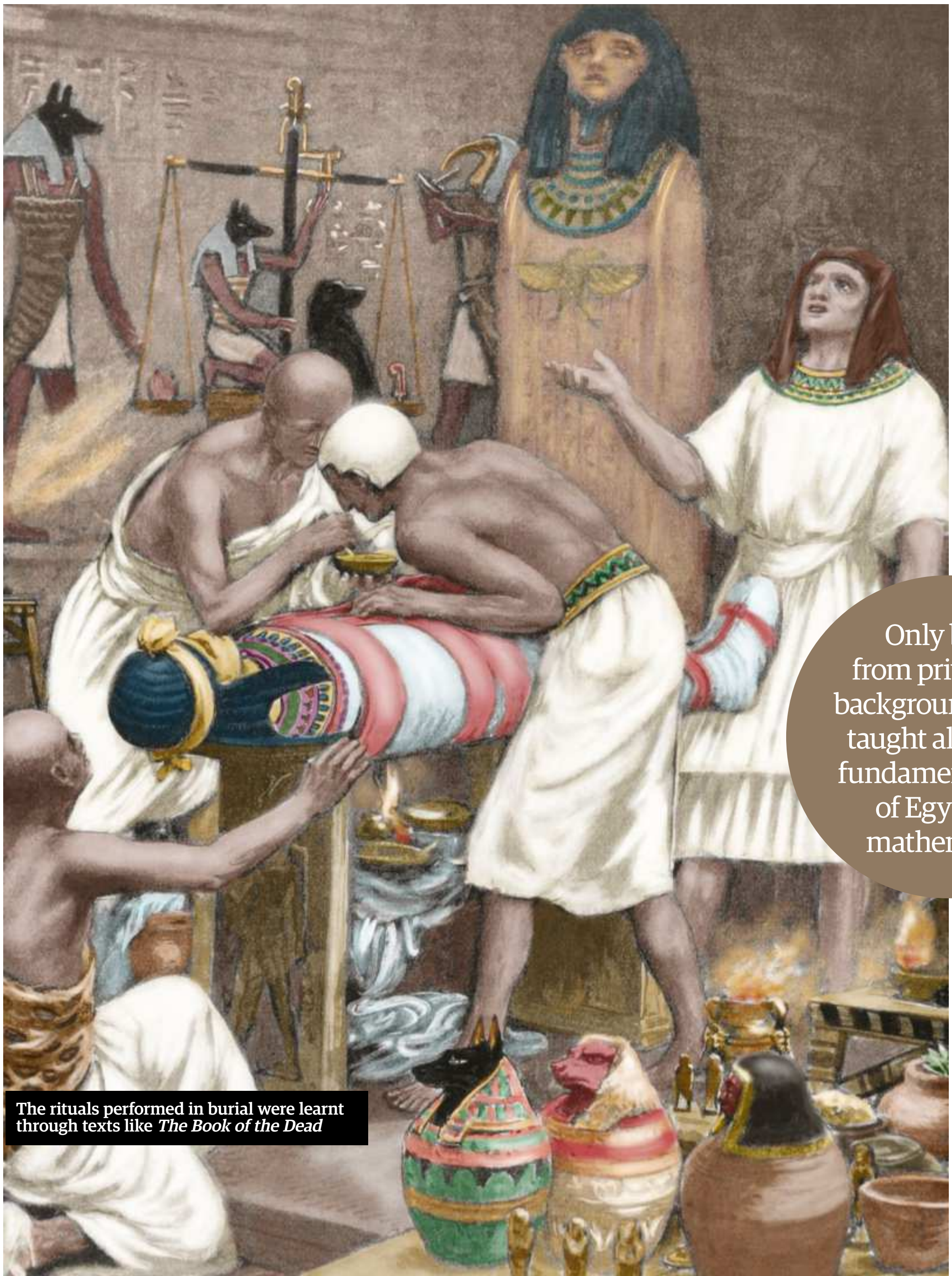
A priestly role that students might aspire to would be that of kher keb, which means the lector priest. This priest would read from a given text, this function bestowing on them particular authority.

At the school, students would also be taught about how to conduct purification ceremonies. These would be undertaken by a priest in order to prepare themselves to enter the most sacred area of any temple, namely the sanctuary.

A student priest would be educated in the particulars of the many feast days and festivals such as First of the Month and the New Moon festivals. One of the most important festivals for a student priest to be taught about would be the Opet festival that was given at Karnak.

Alongside their more obvious, priestly duties and responsibilities, a student priest would be educated in a wide range of administrative processes that sat alongside their public religious functions.

This inscription shows the jackal-headed god Wepwawet and the earth-deity Geb



The rituals performed in burial were learnt through texts like *The Book of the Dead*

was notable for being an administrative centre of Ancient Egypt; the emphasis on writing allowed the Egyptian state to become evermore cohesive and unified.

In a 1972 academic paper in the *Journal Of The American Oriental Society, Volume 92, No. 2,* Professor Ronald J Williams of the University of Toronto quotes from the Greek historian Diodorus Siculus (writing in the first century BCE). Siculus, who travelled in Egypt during 60-57 BCE, observed that the students had "strong bodies, and with spirits capable of leadership and endurance because of their training in the finest habits." Diodorus also explains that scribal students learned two kinds of writing, "that which is called 'sacred' and that which is more widely used for instruction." The type of sacred writing Diodorus identifies is exemplified by *The Book of the Dead*, which served as a key text for the people of Ancient Egypt and took the reader through the range of ceremonial beliefs.

Algebra would have been a very important part of the mathematics lessons taught to boys from the most privileged backgrounds. Egyptian numbers were developed using just seven ideograms: a single vertical stroke representing one; a shape resembling an 'n' but which was in a fact a representation of a heel bone for the number ten; 100 was represented by a coil shape that represented a coil of rope. An ideogram of a lotus plant represented 1,000, and an ideogram of a human finger was used to represent a value of 10,000. An ideogram of a frog represented 100,000 and 1,000,000 was a value represented by a kneeling god. The young pupils had a lot to remember!

> Only boys from privileged backgrounds were taught algebra, a fundamental part of Egyptian mathematics

Fictional stories, poetry and hymns all comprised examples of how an education in literacy yielded important literary material.

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Working for a living

Ancient Egyptian workplaces comprised of some jobs that you might like to try out as well as those that you definitely wouldn't

Best jobs

Worst jobs

Agriculture

Farm Owner
As the farm owner, you're very much your own boss and there's no need to commute to work. The big challenge for the farmer is dealing with the inundation: the season of floods that comes every year between June and September. During this time, farmers would do government work as a labourer on grand public building projects.

Labourer
A huge number of the population were labourers. They would work in the fields of farmers or as servants in the homes of society's nobles. Like the farmer, the labourer would be required to work on public building projects during the inundation. Labourers earned little money, with very little opportunity for social mobility.

Administration

Vizier
Living in a comfortable home and tended to by servants, a vizier enjoyed significant authority supervising the work of other bureaucrats. The vizier also advised the pharaoh on a wide range of matters. Typically, a vizier would live in proximity to one of the major administrative city centres, such as Alexandria, Thebes or Memphis.

Servant
A servant in the context of Ancient Egypt's bureaucratic system would have been required to help prepare the vizier for his day at work, attending to helping him get dressed and then preparing breakfast for him and then making sure he had all of his belongings to hand before he headed out to work in the city.

Military

Charioteer
A rather 'glamorous' soldiering role, or even an elite role, you could say. Charioteers used composite bows, which meant that their arrows could be fired over a large distance. The chariot was hugely important in giving the Egyptian army a particular advantage. Charioteers were rigorously trained in military tactics and combat skills.

Servant
Life at military forts would have been tough and potentially dangerous for everyone based there. The servants at a fort would have attended to the vast panoply of supporting tasks to maintain an efficient fort, which would have been populated by archers, slingmen, axe and club men, doctors, scribes and priests. All of society in microcosm.

Courtly life

Pharaoh
The highest authority in the land, and with all of the luxuries and comforts of home that you could imagine. The pharaoh was attended to throughout his whole life, and was able to do as much as he wished to shape a more favourable public perception of him through the mediums of public art and grand monuments in the kingdom.

Sandal bearer
Following behind the pharaoh, carrying his sandals. If you look at the Narmer Palette, you can see a sandal bearer at work. While it seems like an awful job, in one way or another it wasn't, as it was highly regarded work. The pharaoh's sandals symbolised his highest status in the country and might also have been associated with cleanliness.

Religion

Priest
Highly regarded as a wise communicant with the deities, priests occupied a very special place in Ancient Egyptian culture. Becoming a priest involved an initiation ritual and taking vows. Temple priests were responsible for the smaller temples, while a high ranking priest advised the pharaoh directly and performed sacred rituals.

Mummifier
Given the emphasis that Ancient Egyptian culture placed on preparation for death, the tradition of mummifying corpses, a weeks-long process, was a very ordinary part of working life in the world of religious practice. The mummifier would remove the internal organs of the corpse and liquify the brain by putting a hook up the nose.

Working life

Historian J M Roberts wrote that "Ancient Egypt has always been our greatest visible inheritance from antiquity." As such, the archaeology and scholarship that has subsequently developed around Ancient Egypt offers us a sense of both the big and small picture of the nation.

Social status, then, was connected with one's occupation: a relationship that echoes and anticipates what still holds true for so many in the 21st century around the world. When was the last time you went to a social gathering and weren't asked what work you do to make a living?

It's essential to make clear the point that agricultural working life was the broad base on which Egyptian society and culture was built. In the Early Dynastic Period and thereafter, farmers lived in small villages and cereal agriculture was the most important domestic product.

Key agricultural crops were emmer wheat and barley. In their development of technology and the agricultural industry, Egyptian farmers developed irrigation systems that expanded the amount of land that could be farmed beyond immediate proximity to the River Nile.

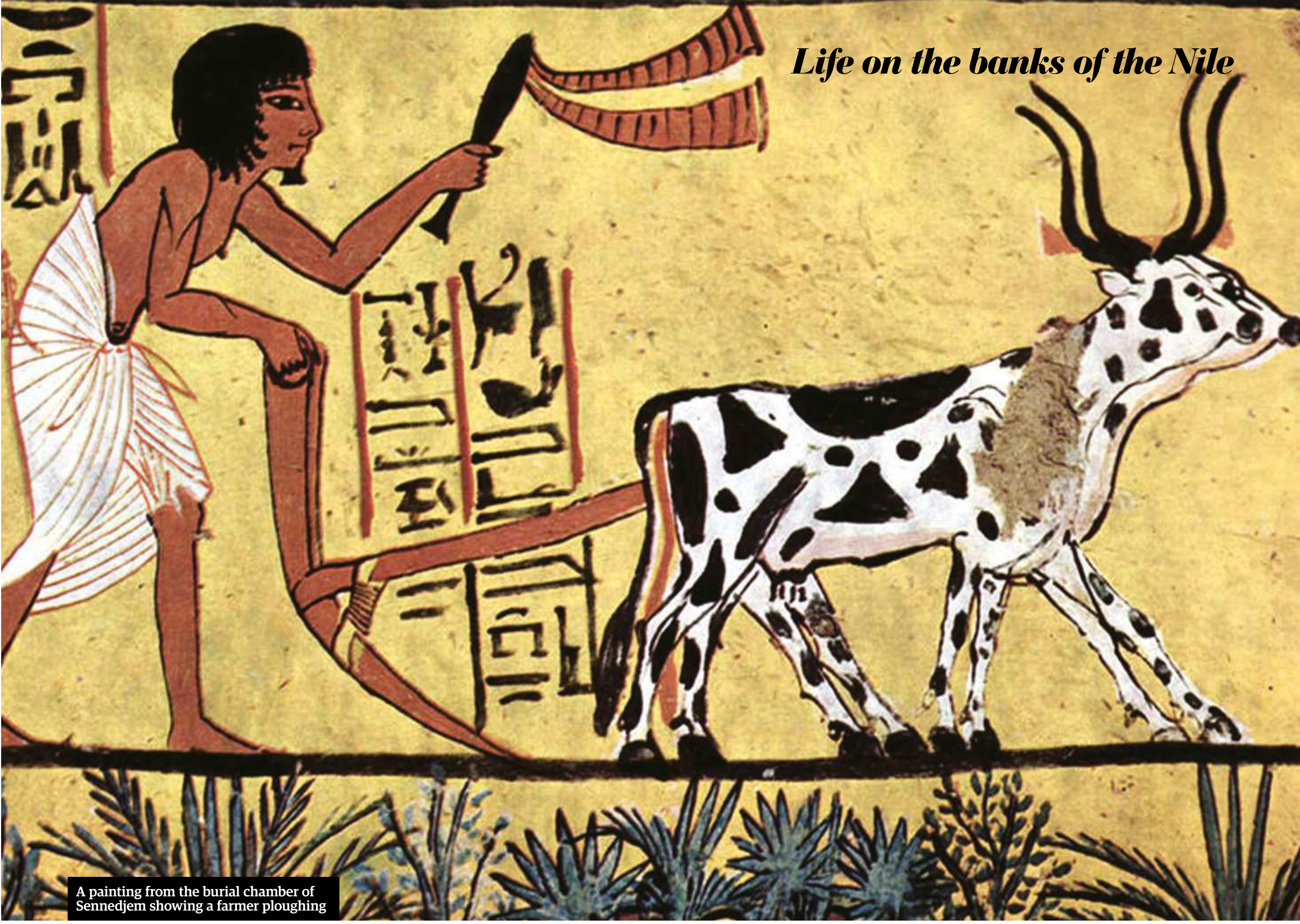
Another key agricultural product was wine, and it was not only grapes that were used to produce it: farmers also made wine from figs, dates and pomegranates. Common to all farming life were sheep and goats, and wealthier farmers would also own cattle and oxen that would be a source of food as well as used for ploughing.

Essential to the organisation of the country and its workers were the scribes. For a scribe, their routine work would include writing up data about taxes, creating and administrating census lists and drawing up calculations for the varied, immense building projects across the country.

Egypt was indeed a country of grand designs. The tradition of a civil service is a long-standing feature of so many countries. Historian Dr Gae Callender has made the point that "the Middle Kingdom was a time when art, architecture and religion reached new heights but, above all, it was an age of confidence in writing, no doubt encouraged by the growth of the 'middle class' and the scribal sector of society."

Labour-intensive work on public buildings and monuments was a constant feature of working life for many Egyptians, and this would have been supervised by the scribes, whose education included sustained study of administrative processes and principles of architecture and maths.

In Ancient Egypt, winches, pulleys, blocks or tackle were not used in civil engineering



A painting from the burial chamber of Sennedjem showing a farmer ploughing

projects. Instead, levers and sleds and the use of immense ramps of earth were the combinations of 'hardware' that allowed for immense pieces of stone to be moved and positioned. It might be fair to say that the Hollywood movie *The Ten Commandments* recreates this kind of activity quite faithfully.

Ancient Egypt, unlike its eastward neighbour of Mesopotamia (modern-day Iran), did not become so urbanised and, therefore, working life for most of the population was largely centred around agricultural work. Arguably, while slavery did have a key role in the social hierarchy of Ancient Egypt, it was not as prevalent as can be found in other contemporary societies beyond that of Egyptian borders.

Critically, women, while having not been formally educated, worked at all levels of society, and shared almost all of the same legal entitlements as men, from performing the duties of a royal household right through to piloting boats on the Nile and working as market traders. Crucially, women from the upper class served in the priesthood, often as chantresses, an extremely high-profile and resonant role in such a highly religious community.

Key to Egyptian working life was trade both within and beyond its borders. Debate continues about whether the trade benefited the working man or the pharaoh more. Because of the Nile leading so readily to the Mediterranean, Egypt could trade relatively easily with the Mediterranean countries.

The River Nile afforded Ancient Egyptians the opportunity to trade with civilisations in the Mediterranean and beyond

"Labour-intensive work on public buildings and monuments was a constant feature of working life for many Ancient Egyptians"

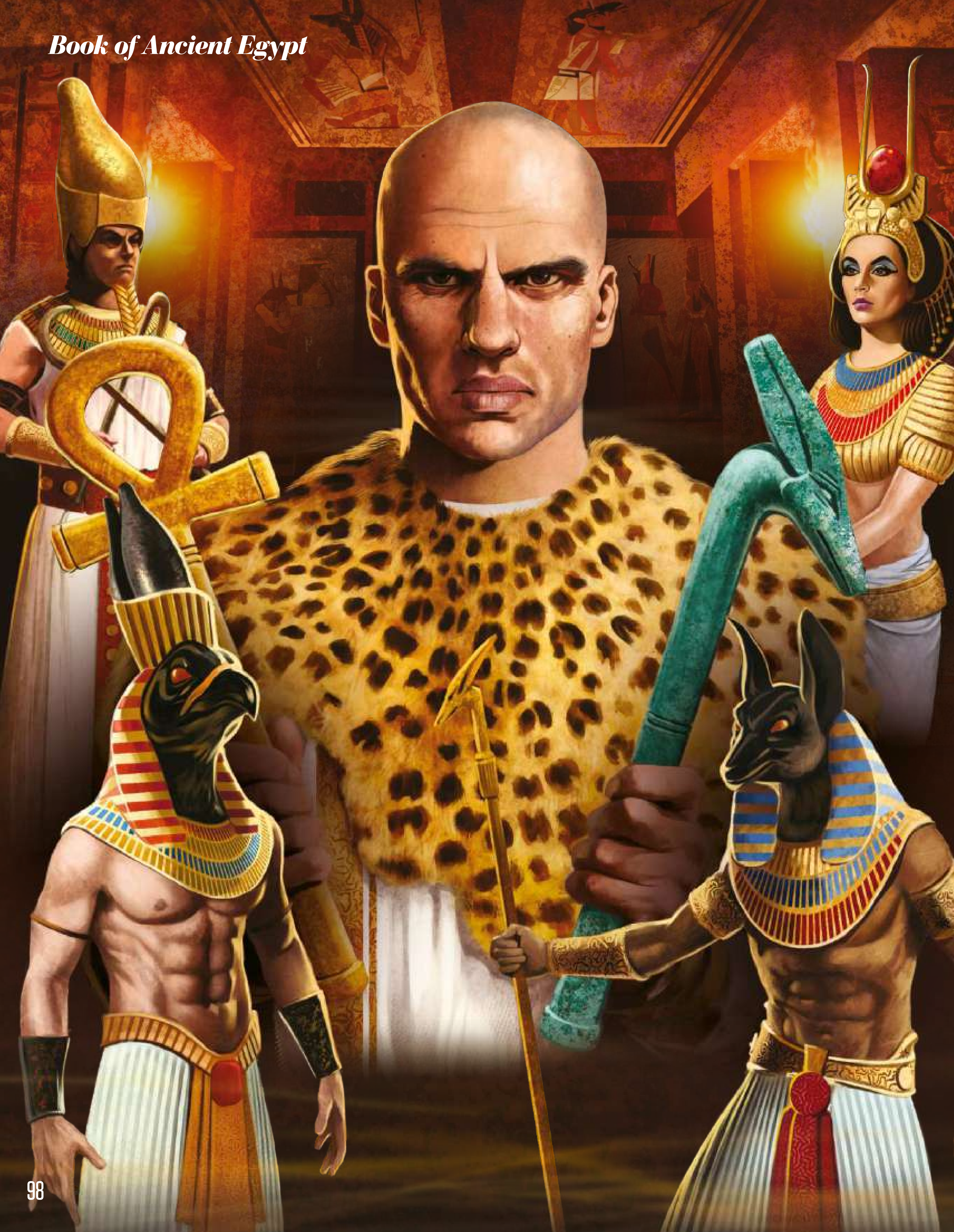
Border law and order

An Egyptian police force was not a consistently trained or administrated unit, but it did exist in the forms of what we could call policemen. Guards certainly protected particular people and places and maintained a patrol of a given place.

As time went on, the police force became more refined and the practices of its police captains became standardised. The police force was tied quite strongly to Egypt's military and, in its earliest iteration during the Old Kingdom period, a police presence was very much a community effort.

Similar to the modern day Neighbourhood Watch, if a community could afford it, they might hire guards to patrol and protect their suburb. The more organised and administrated police force in its earliest form was comprised of men of the Medjay tribe who were highly skilled archers and came from the neighbouring Nubia. So well regarded were the Medjay, that their tribal name became the generic name for the police during the New Kingdom period.

As the idea of a police force evolved, it did at times function as a paramilitary of sorts and the Medjay would be engaged to patrol Egypt's borders on foot and on horseback as cavalry. The nascent police force would also enforce tax collection among Egypt's citizens and might also function as messengers between government officials when they were needed.



Gods of Ancient Egypt

The Ancient Egyptians are perhaps best known for their complex religion, whose hundreds of gods were worshipped in some of the most spectacular temples ever built

As early as 17,000 BCE, carvings of wild cattle alongside strange hybrid creatures at the site of Qurta in southern Egypt suggest an early belief in the hidden forces of nature. With Egypt's earliest stone sculpture at about 7,000 years old believed to represent a cow, it is clear this was an animal that played an important role in the lives of the early Egyptians. So too did their desert environment, in which the dominant Sun was worshipped as a variety of gods, much like the River Nile, whose annual life-bringing floodwaters were likewise venerated as divine.

As these aspects of the natural world gradually developed into individual gods, each region of Egypt also had their own local deities whose characters evolved through stories and myths. One of the key myths for the Ancient Egyptian people was the Story of Creation, when the primeval waters of chaos receded to reveal a mound of earth on which life first appeared.

Yet with so many different deities throughout the Nile Valley, each region claimed that life had been created by their own local god. In Egypt's earliest capital, Memphis, their chief deity Ptah had emerged from the waters to summon up all living things by simply speaking their names, while at the nearby city of Sais, creation was regarded as the handiwork of the goddess Neith. At Hermopolis, life had been sparked into being through the combined energies of eight gods, four male frogs and four female snakes, while in the far south at Aswan, the ram-headed god Khnum had created all life on his potter's wheel.

But the most important creation myth centred on Heliopolis, where the supreme deity was the Sun god Ra. Worshipped as 'the Mother and Father of All', the Sun produced twin children Tefnut, goddess of moisture, and Shu, god of air, who in turn produced the sky goddess Nut and the earth god Geb, parents of twin couples Isis and Osiris, Seth and Nephthys.

With Isis and her brother Osiris claimed as Egypt's first rulers, they were succeeded by their son Horus, then the 'Followers of Horus', demigods who preceded Egypt's first human rulers, each of whom was regarded as the gods' child. Over the subsequent 3,500 years of pharaonic history (c. 3100 BCE–395), Egypt's pantheon of deities continued to expand as more gods were introduced and some merged together, creating a complex and varied pattern of religion.

JOANN FLETCHER

Author Bio

Professor Joann Fletcher of the University of York is an Egyptologist who also works with the museums of Harrogate, Wigan and Barnsley. Her latest book is *The Story of Egypt*, and her most recent BBC2 series was *Immortal Egypt with Joann Fletcher.*

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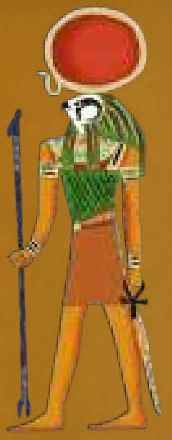
Meet the gods

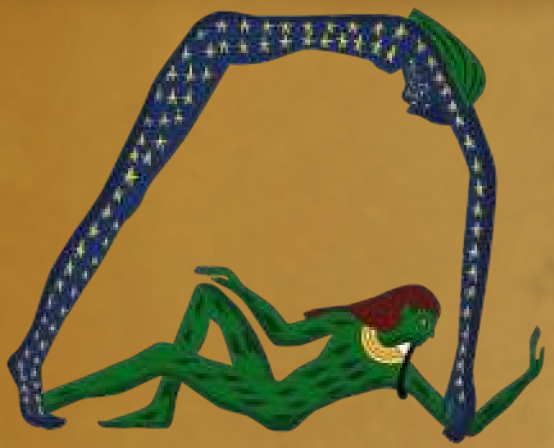
Although almost 1,500 deities are known by name, many of them combining with each other and sharing characteristics, these are some of the main ones



RA

God of the Sun

Ra was Egypt's most important Sun god, also known as Khepri when rising, Atum when setting and the Aten as the solar disc. As the main creator deity, Ra also produced twin gods Shu and Tefnut.



GEB

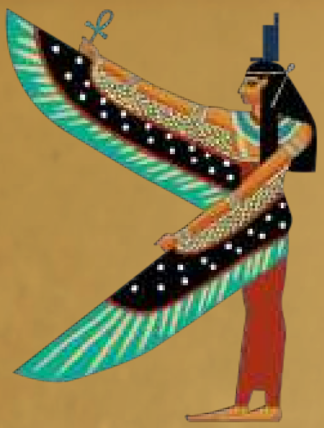
God of the Earth

As the grandson of Ra and the son of Shu and Tefnut, green-skinned Geb represented the Earth and was usually shown reclining, stretched out beneath his sister-wife Nut.

NUT

Goddess of the sky

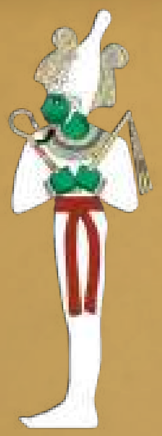
As granddaughter of Ra, Nut was the sky goddess whose star-spangled body formed the heavens, held above her brother Geb by their father Shu, god of air.



ISIS

Goddess of motherhood and magic

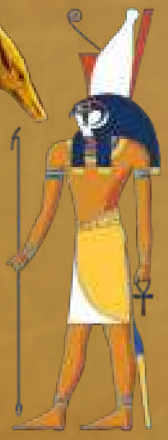
The daughter of Geb and Nut, Isis was the perfect mother who eventually became Egypt's most important deity, 'more clever than a million gods' and 'more powerful than 1,000 soldiers'.



OSIRIS

God of resurrection and fertility

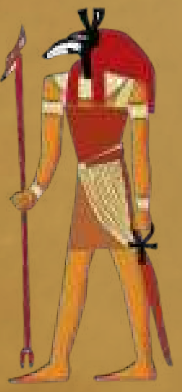
Isis's brother-husband Osiris was killed by his brother Seth, only to be resurrected by Isis to become Lord of the Underworld and the god of new life and fertility.



HORUS

God of Kingship

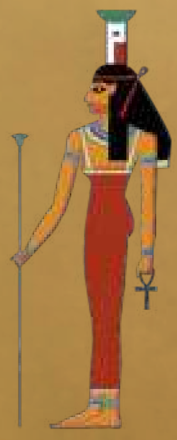
When his father Osiris became Lord of the Underworld, Horus succeeded him as king on Earth, and became the god with whom every human pharaoh was then identified.



SETH

God of storms and chaos

Represented as a composite mythical creature, Seth was a turbulent god who killed his brother Osiris, only to be defeated by Osiris's son and avenger Horus, helped by Isis.



NEPHTHYS

Goddess of protection

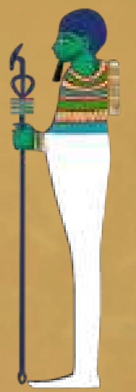
As fourth child of Geb and Nut, Nephthys was partnered with her brother Seth, but most often accompanied her sister Isis as twin protectors of the king and of the dead.

The animal cults of Ancient Egypt

The Egyptians greatly respected the natural world, particularly animals whose spirits were worshipped as divine. With Egypt's earliest known art representing animals alongside humans, various creatures were placed in human burials as early as c. 4000 BCE, and the relationship was a fundamental part of Egypt's evolving religion.

Gods could be portrayed entirely as an animal, or in human (anthropomorphic) form with an animal's head, as imitated by masked priests. Many deities also had a sacred creature, which was worshipped in life then mummified at death.

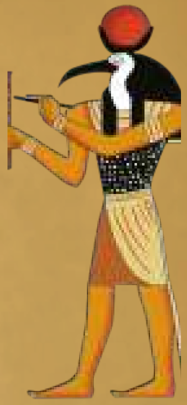
The most important of these was the Apis Bull of Memphis. Believed to house the soul of the creator god Ptah when alive, it was then worshipped as the underworld god Osiris after its death when the next bull was selected to continue the cycle. Other sacred bulls and cows were worshipped elsewhere in Egypt, with other animal cults including the sacred crocodiles of Sobek, representing the power of the king, and the sacred rams of the creator god Khnum. There were also the ibis and baboons representing the god Thoth, and the cats sacred to the feline deity Bastet. Such creatures were mummified in their millions as physical manifestations of the divine and symbols of Egypt's devotion to its creatures.



PTAH

God of creation and craftsmen

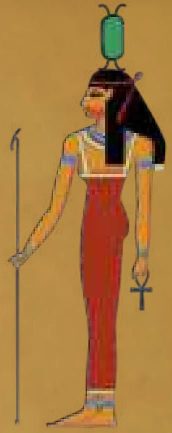
Ptah was a creator god and patron of craftsmen whose temple at Memphis, known as the 'House of Ptah's Soul' – 'hut-ka-ptah' – is the origin of the word 'Egypt'.



THOTH

God of learning and the moon

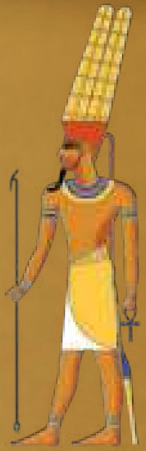
As the ibis-headed god of wisdom and patron of scribes, Thoth invented writing and brought knowledge to humans. His curved beak represented the crescent moon, and his main cult centre was Hermopolis.



NEITH

Goddess of creation

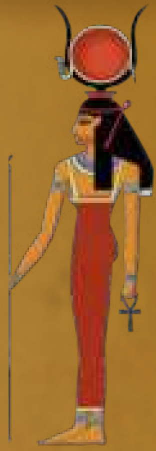
As a primeval creator deity represented by her symbol of crossed arrows and shield, warlike Neith, 'Mistress of the Bow', was worshipped at her cult centre Sais in the Delta.



AMUN

God of Thebes

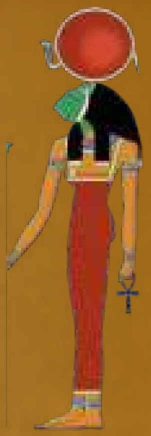
Initially the local god of Thebes, whose name means 'the hidden one', Amun was combined with the Sun god Ra to become Amun-Ra, king of the gods and Egypt's state deity.



HATHOR

Goddess of love, beauty and motherhood

Often represented as a cow or a woman with cow ears, Hathor symbolised pleasure and joy and as a nurturing deity protected both the living and the dead.

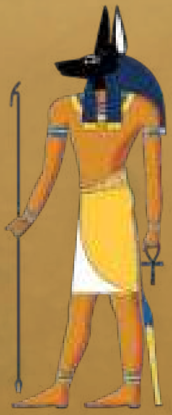


SEKHMET

Goddess of destruction

The lioness goddess Sekhmet controlled the forces of destruction and was the protector of the king in battle. Her smaller, more kindly form was Bastet the cat goddess, protector of the home.

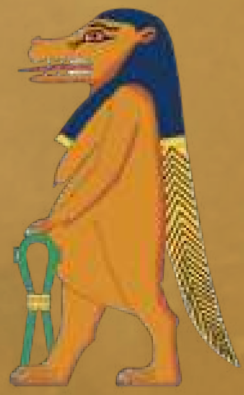
> "Gods could be portrayed in animal or human form, or as a human with an animal's head"



ANUBIS

God of embalming and the dead

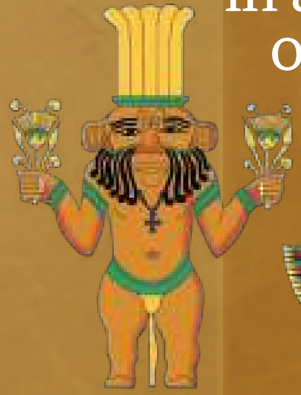
The black jackal god Anubis was the guardian of cemeteries and god of embalming, who helped judge the dead before leading their souls into the afterlife.



TAWERET

Goddess of the home and childbirth

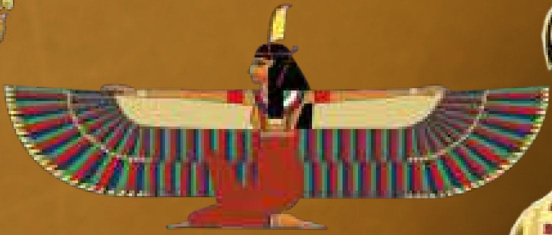
Taweret was a knife-wielding hippopotamus goddess who guarded the home, a protector of women and children who was invoked during childbirth to scare away evil forces.



BES

God of the home and childbirth

Bes was a dwarf-like god of the household who protected women and children alongside Taweret, like her carrying knives for protection, in his case he carried musical instruments for pleasure.



MAAT

Goddess of truth and justice

As the deity who kept the universe in balance, Maat's symbol was an ostrich feather against which the hearts of the dead were weighed and judged in order to achieve eternal life.

Temples of the gods

The Egyptians built temples as homes for their gods, believing their spirits resided inside their statues to which a constant stream of offerings were presented

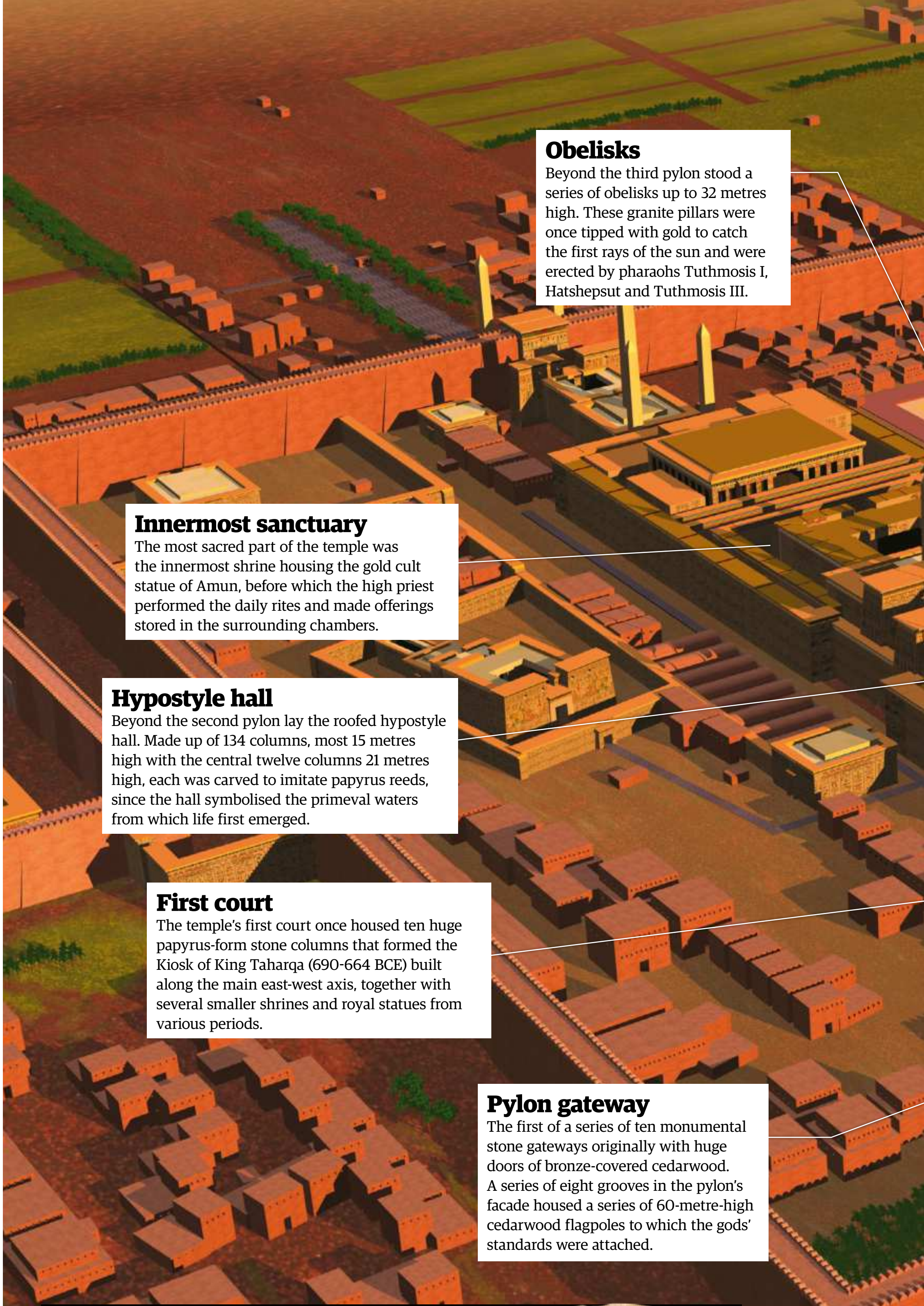
As early as c. 3500 BCE, the Egyptians built temples for their gods. Initially made of wood and reeds, these soon became permanent structures of stone that formed the centre of almost every settlement throughout the Nile Valley.

Evolving over time into ever more elaborate structures, the Egyptians aligned their temples to their environment, to the cardinal points, and to the movement of the Sun and stars.

Each temple's sacred space was also enclosed by a huge exterior wall of mud-brick, within which the temple itself was made up of a series of successive stone-built shrines and courtyards. Accessed through pylon-shaped gateways once flanked by tall cedar wood flag poles and secured by huge cedar wood doors, the temple walls were covered in brightly painted scenes of gods and kings, and like their floors and ceilings, often inlaid with precious metals and gemstones.

Then, to heighten the sense of reverence, the temple layout became progressively smaller and darker until reaching the innermost sanctuary, which housed the gods' cult statues. These were believed to contain the gods' spirits, before which daily rituals were performed to maintain the divine presence and satisfy the gods who would in turn protect Egypt. With the gods in residence, the temples became storehouses of divine power that could then be redirected through rituals for the benefit of the country.

To keep these sacred spaces ritually pure, only royalty and designated clergy were allowed inside – the majority of people were confined to the temple's outer areas, where the main administrative buildings were located. For Egypt's temple complexes were not only religious centres, but their outer precincts a combination of town hall, library, university, medical centre and law court – places where people came together for the purposes of community life at the heart of which lay the spirits of the very gods themselves.



Obelisks
Beyond the third pylon stood a series of obelisks up to 32 metres high. These granite pillars were once tipped with gold to catch the first rays of the sun and were erected by pharaohs Tuthmosis I, Hatshepsut and Tuthmosis III.

Innermost sanctuary
The most sacred part of the temple was the innermost shrine housing the gold cult statue of Amun, before which the high priest performed the daily rites and made offerings stored in the surrounding chambers.

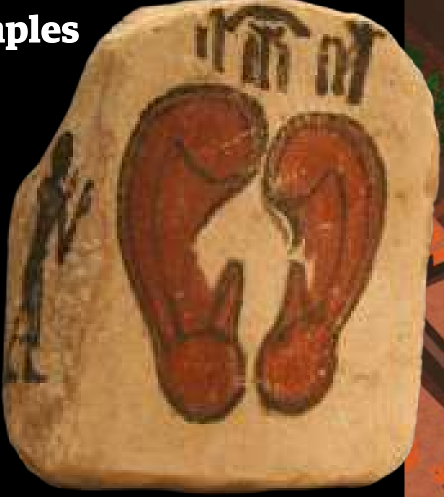
Hypostyle hall
Beyond the second pylon lay the roofed hypostyle hall. Made up of 134 columns, most 15 metres high with the central twelve columns 21 metres high, each was carved to imitate papyrus reeds, since the hall symbolised the primeval waters from which life first emerged.

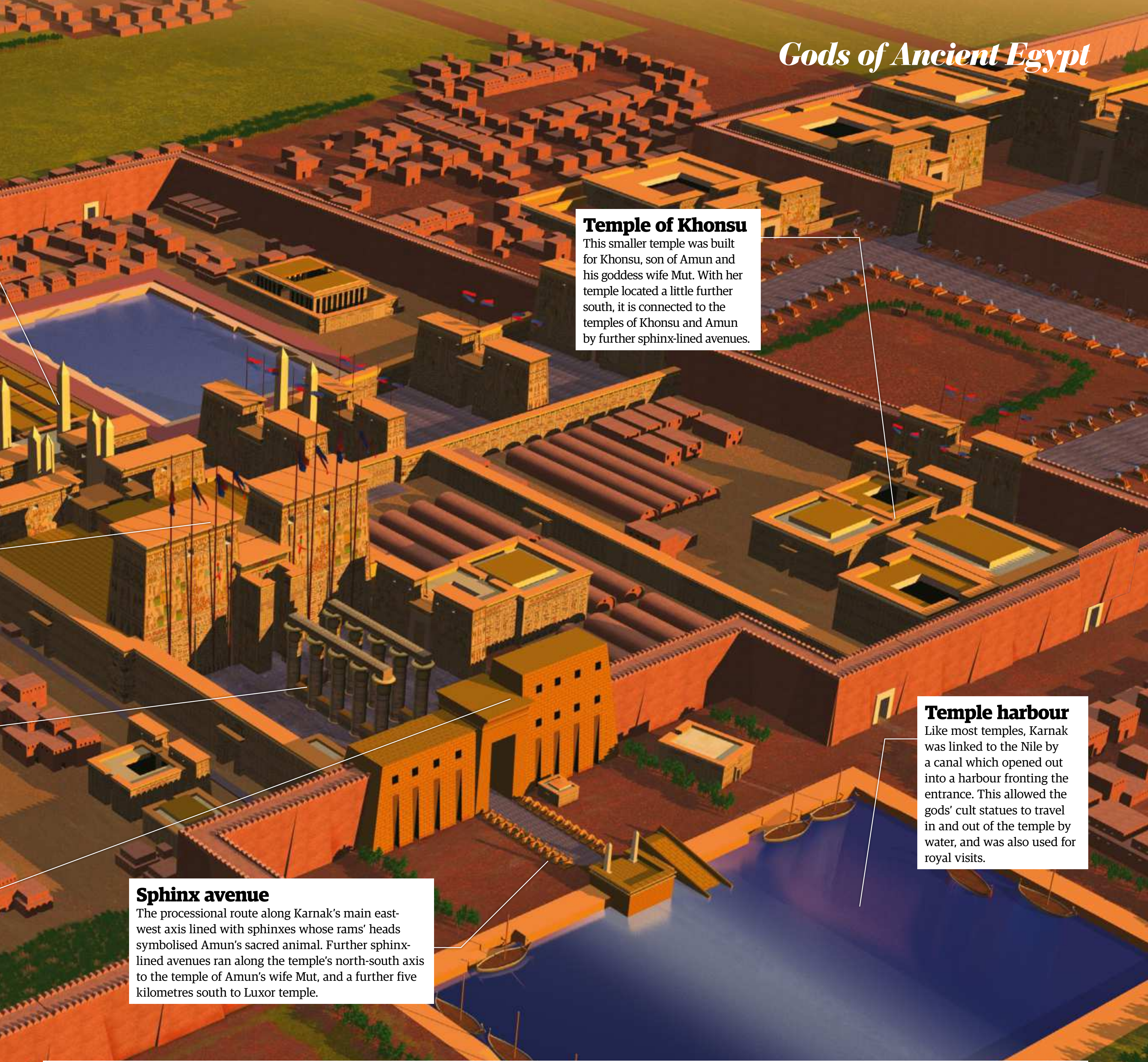
First court
The temple's first court once housed ten huge papyrus-form stone columns that formed the Kiosk of King Taharqa (690-664 BCE) built along the main east-west axis, together with several smaller shrines and royal statues from various periods.

Pylon gateway
The first of a series of ten monumental stone gateways originally with huge doors of bronze-covered cedarwood. A series of eight grooves in the pylon's facade housed a series of 60-metre-high cedarwood flagpoles to which the gods' standards were attached.

Worship beyond the temples

With access to Egypt's temples restricted to royalty and clergy, the temples' outer walls sometimes incorporated shrines featuring images of 'listening ears'. These allowed the gods to hear prayers from the general population, with the Amun of Karnak praised as a god 'who comes at the voice of the poor', while the goddess Hathor 'listens to the petitions of every young girl who trusts in her'. People also worshipped at home within small domestic shrines, containing small busts of deceased ancestors and statuettes of favourite gods and past monarchs. The deified queen, Ahmose-Nefertari, and her son, Amenhotep I, were more popular than Amun at the workers' village Deir el-Medina. Families within the home also used magic to keep out hidden forces and evil spirits, particularly during childbirth when the lives of mothers and children were protected with spells, amulets and ivory wands, with masks worn to imitate protective household deities like Bes.





Temple of Khonsu
This smaller temple was built for Khonsu, son of Amun and his goddess wife Mut. With her temple located a little further south, it is connected to the temples of Khonsu and Amun by further sphinx-lined avenues.

Temple harbour
Like most temples, Karnak was linked to the Nile by a canal which opened out into a harbour fronting the entrance. This allowed the gods' cult statues to travel in and out of the temple by water, and was also used for royal visits.

Sphinx avenue
The processional route along Karnak's main east-west axis lined with sphinxes whose rams' heads symbolised Amun's sacred animal. Further sphinx-lined avenues ran along the temple's north-south axis to the temple of Amun's wife Mut, and a further five kilometres south to Luxor temple.

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THE FESTIVAL CALENDAR

The Opening of the Year (New Year's Day)
Month 1, day 1 (19 July)
The Egyptian New Year began with the start of the annual Nile flood, which brought water to the desert landscape and allowed crops to grow. With the floodwaters repeating the moment of creation, it was a time of national rejoicing when hymns claimed 'the whole land leaps for joy' and people threw flowers, offerings and even themselves into the water.

Opet Festival
Month 2, days 15-26 (September)
The Opet Festival began as an 11-day event when the cult statue of Amun was taken out of Karnak, accompanied by musicians, dancers, soldiers and the public. The procession travelled five kilometres south to the temple of Luxor, where the god's statue was joined by the pharaoh in secret ceremonies designed to replenish royal power, amidst feasting and rejoicing.

The Festival of Khoiak
Month 4, days 18-30 (November)
The Festival of Khoiak celebrated the life, death and resurrection of Osiris. Since this was based on the agricultural cycle in which the crops cut down were grown again, ceremonies included planting seeds in Osiris-shaped containers. It was celebrated when the Nile floodwaters were receding, leaving rich, black sediment on the riverbanks into which new crops were planted.

Festival of Bastet
Month 8, days 4-5
The cat goddess, Bastet, was closely linked to the lioness Sekhmet and cow-like Hathor, these deities' lively worship involving much singing, dancing and drinking - all key elements of Bastet's annual fertility festival. Boatloads of men and women would arrive at her cult centre Bubastis to celebrate, when it was reported that 'more wine is drunk at this feast than in the whole year'.

Festival of the Valley
New Moon, Month 10
At the annual Festival of the Valley, the cult statue of Amun was taken out from Karnak and across the Nile to Thebes's west bank. While it was here, the statue visited the tombs and temples of the previous kings that were buried there, accompanied by the local population, who would also visit the tombs of their own relatives to feast with their spirits and leave them offerings.

Festival of the Beautiful Meeting
New Moon, Month 11
This festival celebrated the marriage between the god Horus of Edfu and goddess Hathor of Dendera. Beginning 14 days before the new moon, Hathor's cult statue was transported 70 kilometres south to Edfu temple, where it was placed beside the statue of Horus. 14 more days of festivities involved the participation of the royal family alongside the general population.

Power of the priests

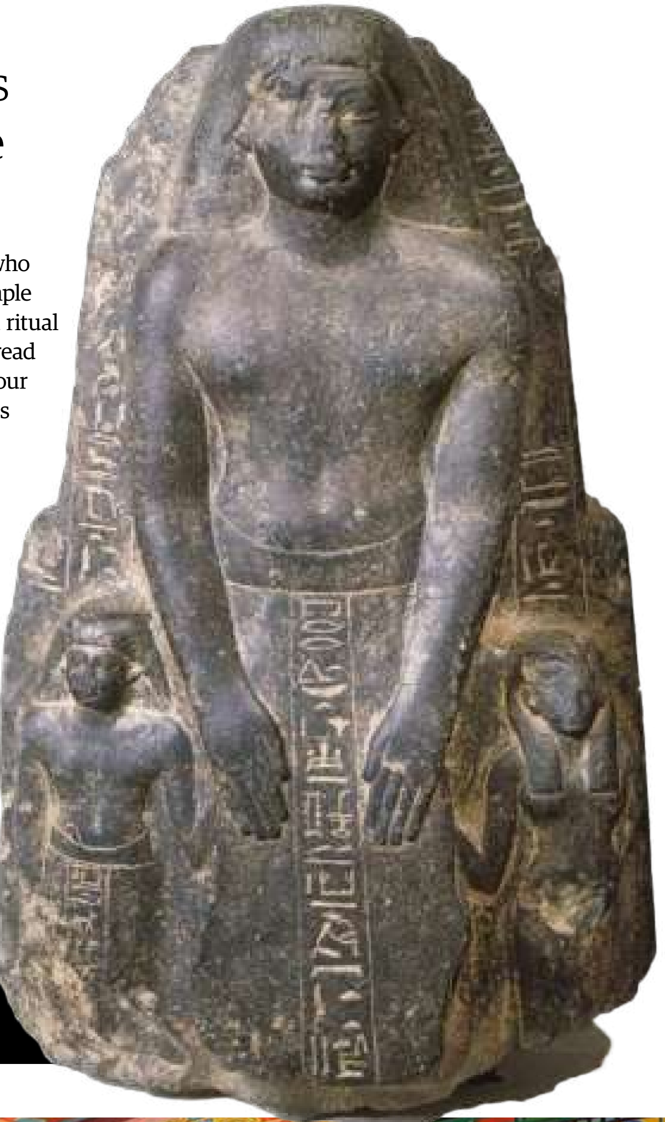
Ancient Egypt's priests were known as 'servants of god', who carried out religious rites before the gods' statues instead of a human congregation

Each successive pharaoh was regarded as a child of the gods, and as the gods' representative on Earth, was also the supreme high priest of every temple. However, with so many different temples throughout Egypt, the pharaoh's duties had to be delegated to each temple's high priest, who was often a royal relative selected by the king to guarantee their loyalty.

Within large temples like Karnak or Memphis, the power of the priests was considerable, since the temples owned much land and the temple treasuries were very wealthy. The priests also controlled the gods' cult statues, which functioned as oracles, whose pronouncements were interpreted by the priests, and could pass judgment in legal cases and even influence royal succession. At times when the crown was weak, the high priests' powers became so great that some took on additional roles as military generals, whose struggles with the monarchy could lead to civil war.

Yet most of the time the priests carried out their role, helping the king maintain strong relations with the gods whose spirits were believed to dwell within their cult statues. Housed in the sanctuary at the innermost part of the temple, it was here that the high priest led daily rites, assisted by a staff of male and female clergy, from the 'god's wife' priestess to the deputy high priest who oversaw supplies of offerings and the temple scribes who kept accounts and composed ritual texts. There were also lector priests who read out these texts, temple astronomers or 'hour priests' who calculated the correct timings for rituals, and temple dancers, singers and musicians who entertained the gods and impersonated them in ritual dramas wearing masks and costumes.

Other staff included the temple gardeners, brewers, bakers and butchers who supplied the daily offerings, the temple weavers, jewellers, barbers and wig makers who supplied both the gods and their clergy, and the numerous craftsmen, carpenters and builders who undertook building work, carried out repairs and kept the temples in good order. In fact so numerous were such personnel that eventually well over 100,000 people were employed in the upkeep of Egypt's three main temples of Karnak, Memphis and Heliopolis.

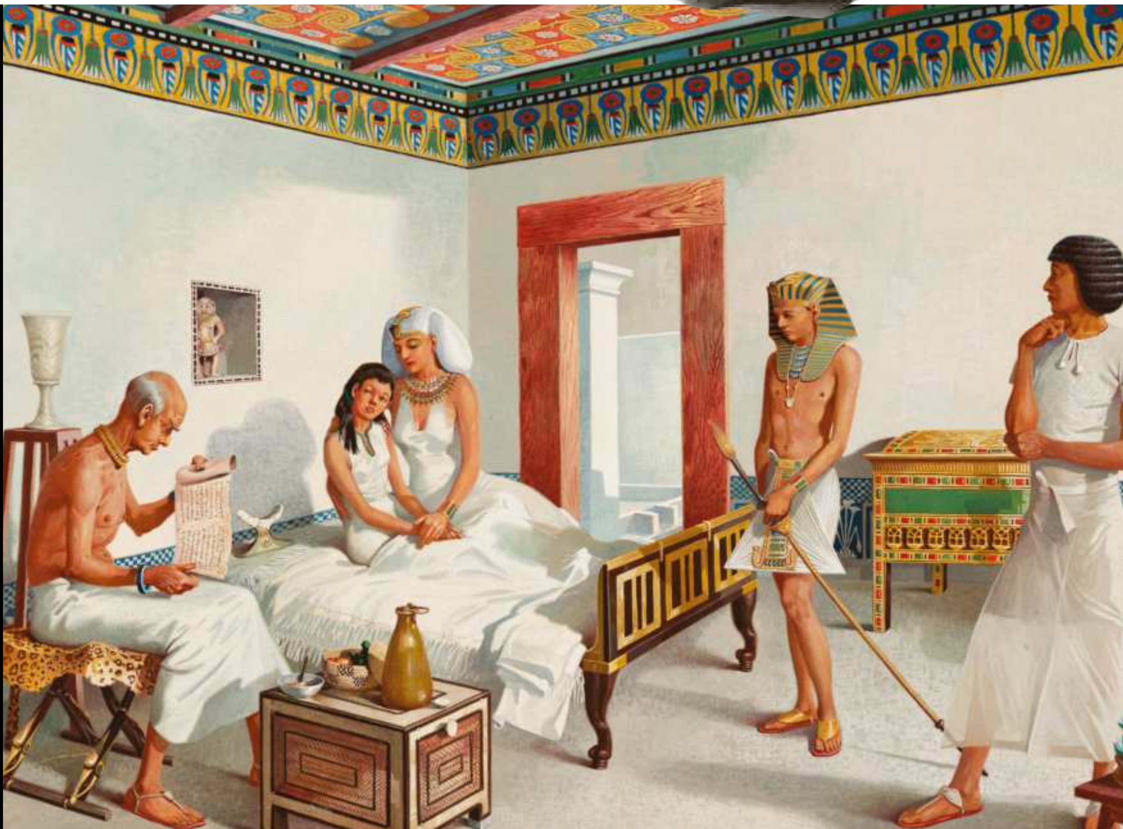


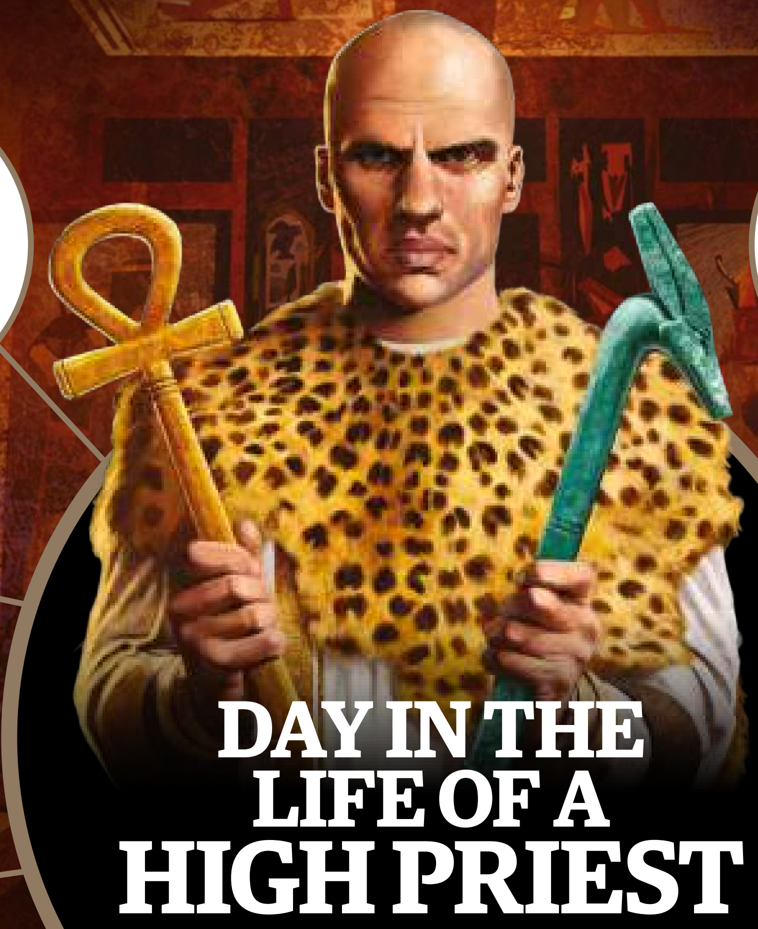
Priest Teti with his family: Teti is in the centre with his father the smaller figure on the left, also named Teti, and his mother, Meket, on the right

Magic and medicine

Ancient Egyptian religion and magic were indistinguishable, and hidden forces in both were regarded as the main cause of illness

Although most communities had part-time medical men and 'wise women', people also slept in the temple's medical centre (sanatorium) in the hope they would be cured through divinely inspired dreams. These were interpreted by the priests, some of whom were also doctors. Since goddess Sekhmet controlled the forces of disease, her priests, believed capable of calming her powers, were therefore doctors specialising in diseases. Priests of the scorpion goddess Selket, patron of healers, cured bites and stings, while childhood illnesses were treated by invoking the mother goddess Isis, whose famous magic appears in various prescriptions including 'a remedy which Isis prepared for the headache of Ra'. Even deified mortals were believed to have such powers, from the polymath Imhotep claimed as a son of the god Ptah and later identified with the Greek god of medicine Asclepius to the official Amenhotep, credited with miracle cures a thousand years after his death. In most cases, treatment involved wearing charm-like amulets, reciting magical incantations and taking medicines made from all manner of ingredients, from water poured over gods' statues to sour milk and even crocodile dung. All were listed in medical texts stored in the temple libraries, covering specialist areas including surgery, dentistry, ophthalmology, gynaecology and veterinary works.





DAY IN THE LIFE OF A HIGH PRIEST

The high priest's day was a series of duties performed at set times to satisfy the gods who would then keep all things in order

Before dawn

Ritual ablutions

To be ritually pure, the priests bathed in the temple's sacred lake, shaved off all hair and gargled with natron salt solution, before dressing in linen robes and reed-woven sandal.

Sunrise

Morning ceremony

At dawn the high priest entered the shrine and awoke the god's spirit in its statue. This was then cleansed, anointed and dressed, and offered the finest foods while frankincense was burned to purify the surroundings.

Pre-noon

Reversion of offerings and ritual ablutions

Once the god had its fill of food offerings, these reverted to the priests as breakfast. Then to maintain ritual purity, the high priest bathed once again before re-entering the gods' presence.

Noon

Midday ceremony

At noon, the high priest re-entered the shrine, this time burning myrrh resin while sprinkling water to further purify the temple's shrines and sacred spaces.

Various times

Various rituals

With numerous rituals performed by the high priest and clergy at various times, these were not only set by the 'Hour Priest' astronomers but carefully measured with a clepsydra water clock.

Evening

Ritual ablutions

To maintain ritual purity throughout the day, the priests had to bathe once again before re-entering the gods' presence.

Sunset

Evening ceremony

In a reverse of the morning ceremony, the high priest once more entered the shrine to put the god's spirit to rest, burning spicy kyphi incense to create a restful environment.

Night

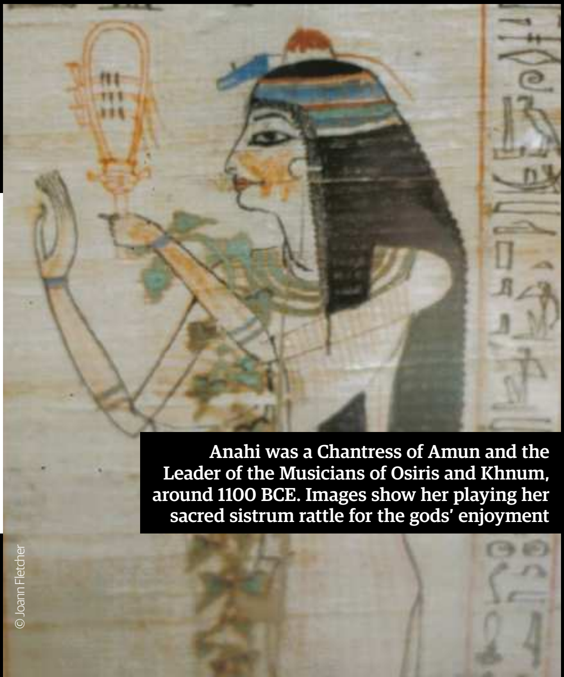
Ritual ablutions

Since the priests had to bathe twice a day and twice at night, a fourth bath maintained ritual purity, while the hour priest astronomers monitored the night sky from the temple roof 'observatory'.

> "At times when the crown was weak, the high priests' powers became so great that [it] could lead to civil war"

Priestesses

Women were priestesses to both goddesses and gods, undertaking similar roles to their male counterparts and receiving the same pay. The most common priestess title was 'chantress', with some women impersonating goddesses in rituals and the wives of high priests holding the title 'leader of the musical troupe'. Although most high priests were men, as were the lector priests who read out sacred texts, women held both these offices at times. Yet the most important priestess was the 'God's Wife', a title held by a succession of royal women acting as the human consort of the god Amun at Karnak. The God's Wife led sacred processions with the king or his deputy the high priest, and like them could enter the innermost shrine to make offerings to keep the gods content. She also took an active role in defending Egypt by magical means, shooting arrows into ritual targets and burning images of enemies. As the role brought great wealth and prestige, kings appointed their sisters or daughters as God's Wife to enhance their own status. Eventually regarded as the equivalent of a king, shown with kingly sceptres, these women could delegate on the king's behalf, both within the temple and in matters of state.



Anahi was a Chantress of Amun and the Leader of the Musicians of Osiris and Khnum, around 1100 BCE. Images show her playing her sacred sistrum rattle for the gods' enjoyment

© Joann Fletcher

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Inside the Karnak Temple

Unveil the process behind the construction of the largest temple complex in the world: the temple of light

In ancient times the temple at Karnak was known as *Ipet-Isut* - 'most divine of places'. The temple housed the cult of Amun-Re, the most important deity in Thebes, and was dedicated to various gods and goddesses.

Egyptian cult temples all share a similar design. However, as Karnak began to grow in importance, the edifice grew larger and more complex. Each pharaoh extended the temple in an attempt to outdo their predecessors in personal piety. Eager to impress the gods, each king embellished the temple with beautiful masonry and enormous pylons, and decorating the complex with elaborate imagery and military texts. The temple acted as a 'generator' of spiritual energy. It was seen as a bridge between the Earth and cosmic realms. Highly visible to the populace, its walls were designed to instil both awe and fear.

At Karnak, a religious ceremony would have commemorated the establishment of the first temple stone. The foundations consisted of sand-filled trenches; although primitive, these proved highly substantial. The temple pylons (weighing thousands of tons) are still standing. Pylons, columns, subsidiary temples and chapels were crafted in sandstone, basalt and granite. Mined from established quarries, the stones were removed in blocks using stone-tipped drills and pounders. Monolithic blocks (used for colossal statuary) were excavated in one single piece. The building materials were transported to the temple by river.

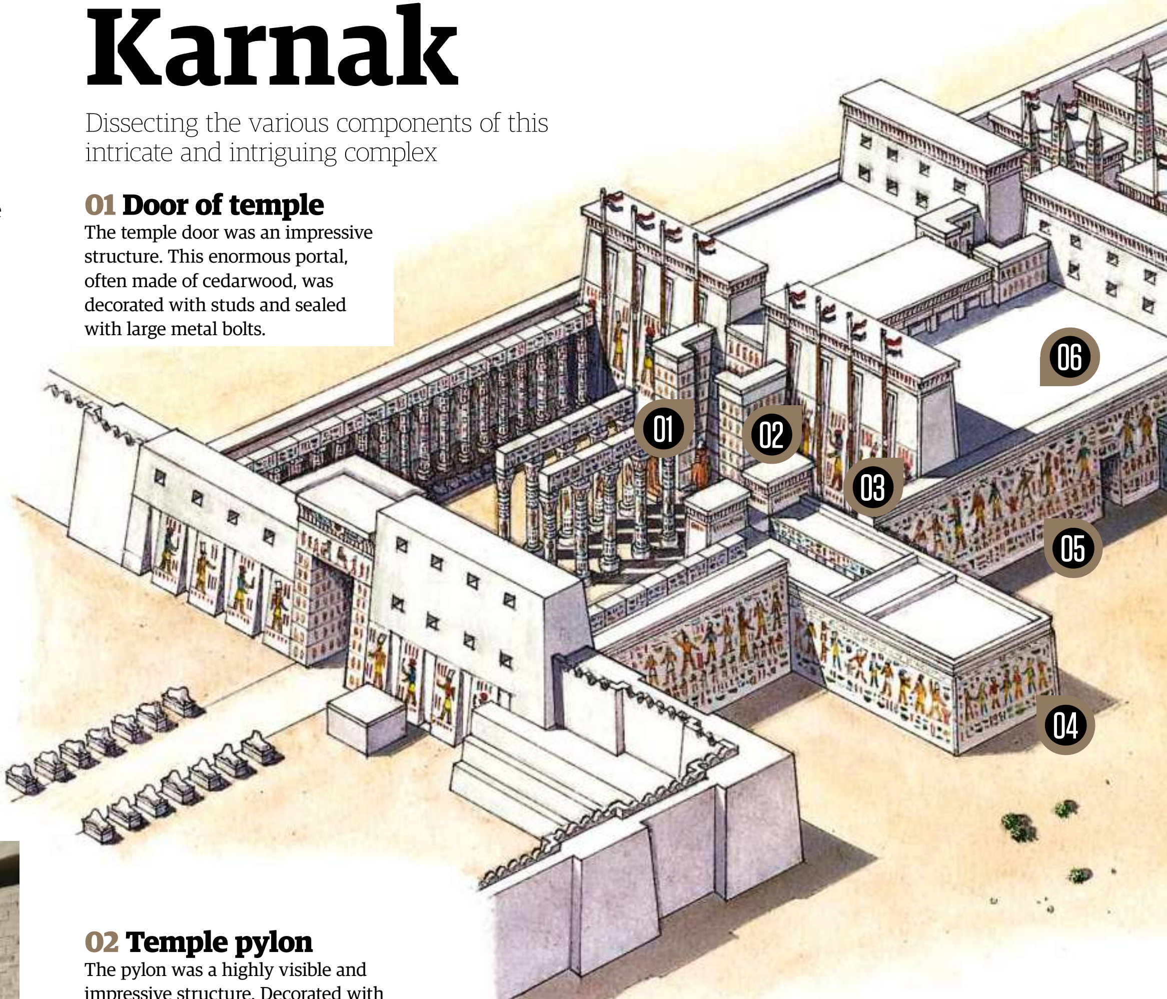
Ram-headed sphinxes line the temple's causeway

The layout of Karnak

Dissecting the various components of this intricate and intriguing complex

01 Door of temple

The temple door was an impressive structure. This enormous portal, often made of cedarwood, was decorated with studs and sealed with large metal bolts.



02 Temple pylon

The pylon was a highly visible and impressive structure. Decorated with military scenes, it was adorned by flagpoles.

03 Decoration of the temple pylon

The pylon was highly visible. For foreign dignitaries, newly arrived in Egypt, it contained a warning. It was decorated with the image of the pharaoh smiting his enemies.

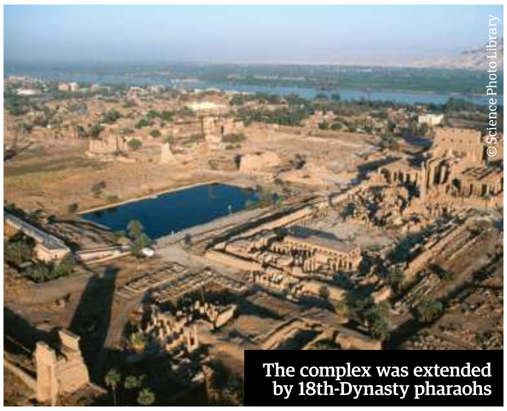
04 Store rooms and magazines

The temple housed large silos of grain, beer and meat and was the centre of religious and political affairs.

05 Temple wall

The temple was surrounded by a large enclosure wall. During festivals, the populace were admitted within the first perimeter. The sacred precincts were inhabited by priests.

Inside the Karnak Temple

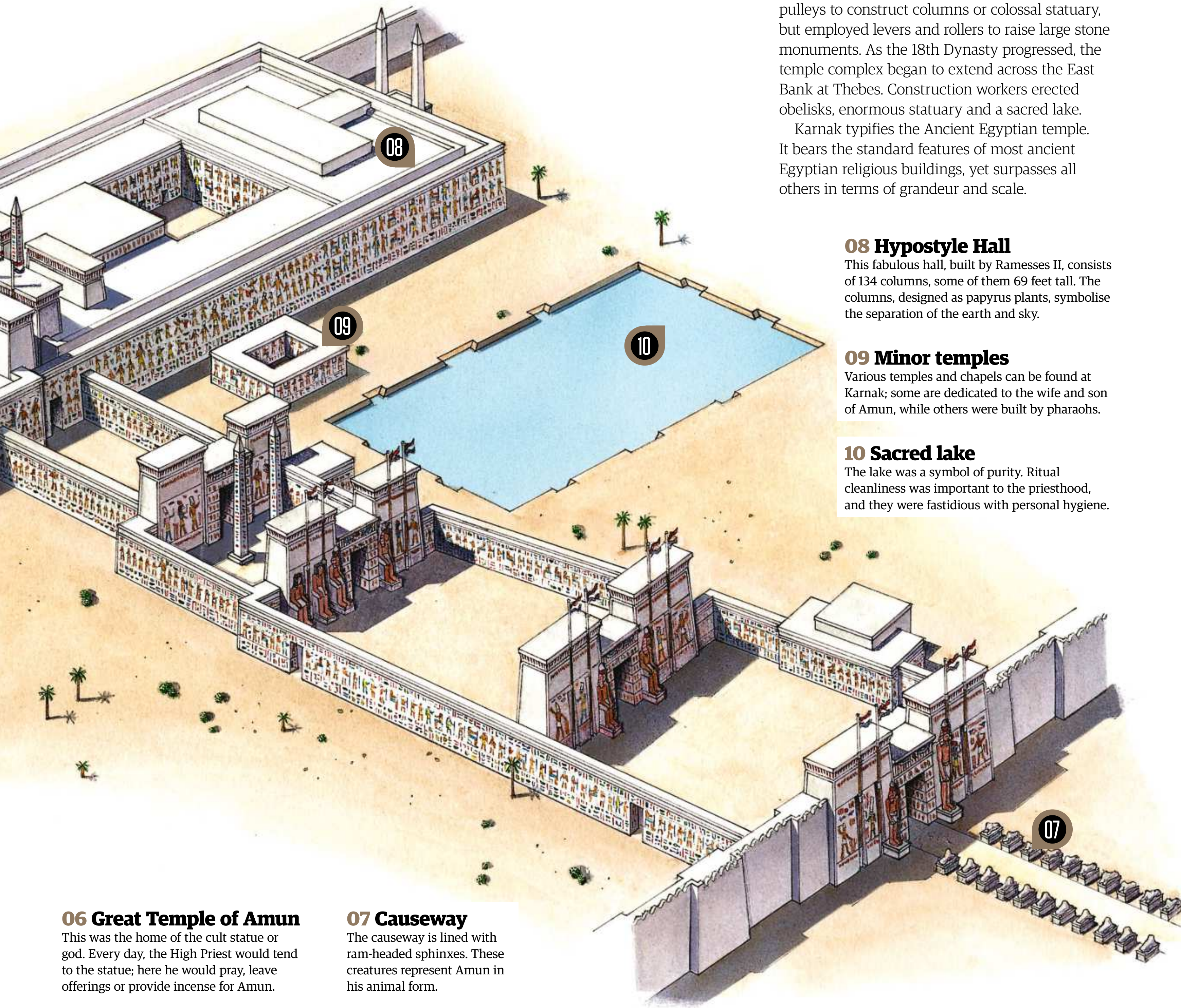

© Science Photo Library

The complex was extended by 18th-Dynasty pharaohs

Building materials came by river

The temple walls consisted of large slabs of stone that were chiselled with mallets and hammers; they were then inscribed with religious and military scenes that were designed to promote the pharaoh as a devout ruler and warrior. Each 18th-Dynasty pharaoh added extra buildings to the temple. For example, the long-lived Ramesses II created the enormous Hypostyle Hall that dominates the site today. In most cases the stone walls were erected in a series of decorated blocks that were interlocked, meaning the craftsmen used very little mortar. The masons employed metal chisels and wooden set squares; they laid out their blocks checking angles and corners. The Egyptians didn't use pulleys to construct columns or colossal statuary, but employed levers and rollers to raise large stone monuments. As the 18th Dynasty progressed, the temple complex began to extend across the East Bank at Thebes. Construction workers erected obelisks, enormous statuary and a sacred lake.

Karnak typifies the Ancient Egyptian temple. It bears the standard features of most ancient Egyptian religious buildings, yet surpasses all others in terms of grandeur and scale.



08 Hypostyle Hall
This fabulous hall, built by Ramesses II, consists of 134 columns, some of them 69 feet tall. The columns, designed as papyrus plants, symbolise the separation of the earth and sky.

09 Minor temples
Various temples and chapels can be found at Karnak; some are dedicated to the wife and son of Amun, while others were built by pharaohs.

10 Sacred lake
The lake was a symbol of purity. Ritual cleanliness was important to the priesthood, and they were fastidious with personal hygiene.

06 Great Temple of Amun
This was the home of the cult statue or god. Every day, the High Priest would tend to the statue; here he would pray, leave offerings or provide incense for Amun.

07 Causeway
The causeway is lined with ram-headed sphinxes. These creatures represent Amun in his animal form.

Sacred animals of Ancient Egypt

The Ancient Egyptians held animals in the highest regard. Both pets and wild animals were incredibly important to Egyptian society, from mummified cats to chariot-pulling stallions

© Alamy

There are various symbols that define Ancient Egypt's spectacular place in history. The civilisation is remembered for the pyramids, the Sphinx, hieroglyphics, pharaohs and distinct afterlife beliefs. Another enduring element of Ancient Egypt is the role that animals played. Ranging from household pets to sacred figures, animals, both domesticated and wild, played a major part in the civilisation's evolution from small settlements on the banks of the Nile, into a sprawling kingdom.

Like today, cats and dogs were popular residents of Ancient Egyptian households. Many families had dogs as pets, but they also accompanied groups on hunts as well as being trained as guard dogs. It is thought that Egyptian hounds were ancestors of today's basenjis, greyhounds and mastiffs, and ancient inscriptions and hieroglyphics have included dog names like 'Brave One' and 'Reliable'.

Cats meanwhile, were slightly different. The Ancient Egyptians believed that felines watched over the home and were seen as spiritual guardians rather than pets. They were very helpful to the Ancient Egytians, as they preyed on mice and birds and, along with ferrets, were used to keep granaries and storehouses free of vermin. It was illegal to export cats out of the kingdom and there was even a branch of government created solely to stop any underground moggy smuggling. Killing a cat was a crime and anyone found to have done so was severely punished in front of a public audience. The death of a cat was mourned in the same way as a human and the family of the deceased feline's owner would all shave their eyebrows as a mark of respect. Dog owners went one step further and mourned a loss by shaving their whole body.

The Ancient Egyptians believed that felines watched over the home and were seen as spiritual guardians rather than pets

Cats were by no means the only sacred animal. Scarab beetles were considered to be just as revered, as were some birds of prey like falcons and hawks. Even some species of fish were seen as sacred and several kinds weren't eaten by the pharaoh and the nobility for religious reasons. Carp and catfish were eaten in high quantities but this was primarily by the lower classes.

As well as having a spiritual purpose, animals were domesticised to make daily life easier, especially in industry. The Ancient Egyptians were an agricultural civilisation and irrigation was used extensively and effectively using the water from the Nile. Donkeys were kept on farms as work animals to pull ploughs and stamp down seeds. Cattle were reared for their meat and milk and

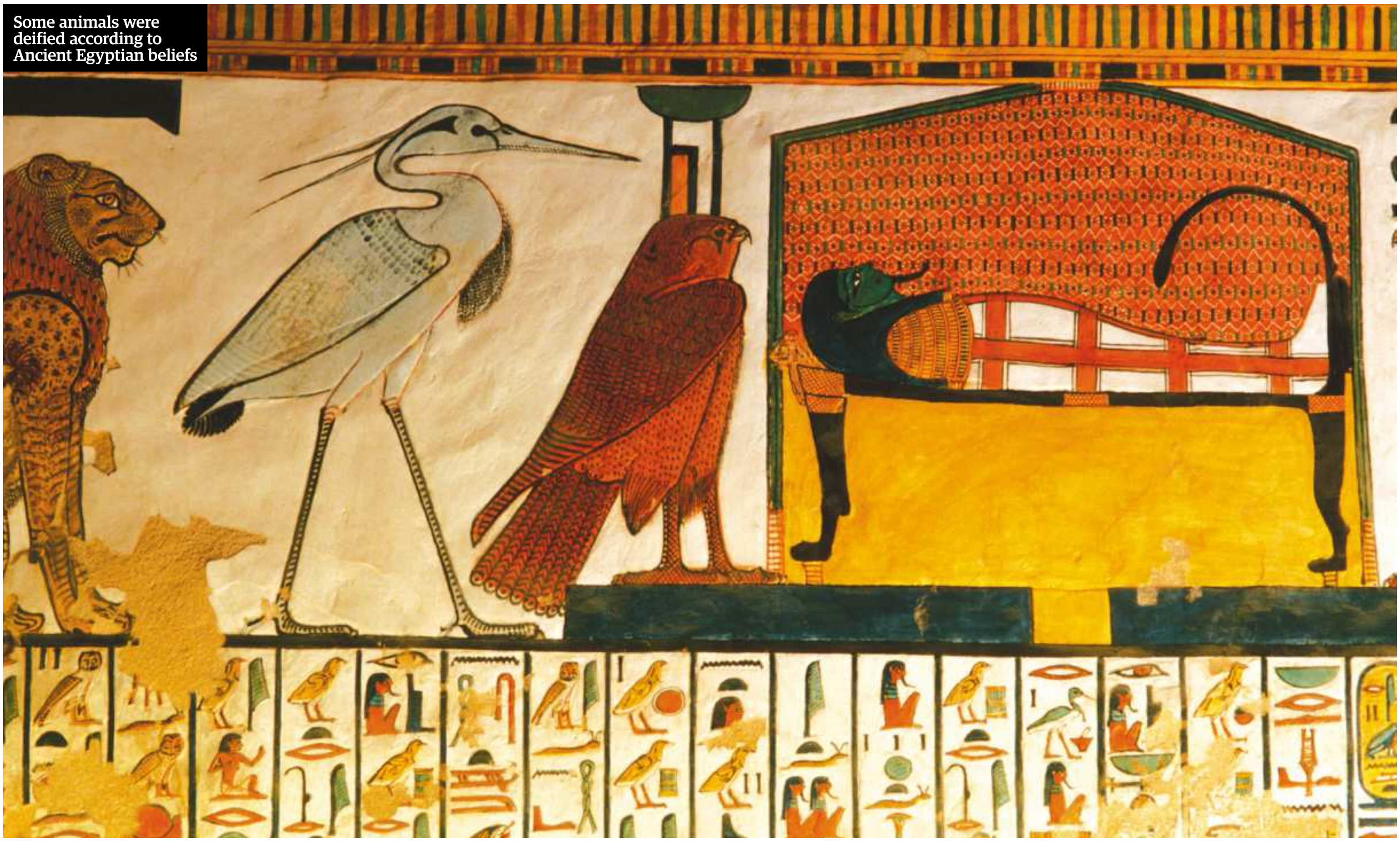
Scarab beetles

The study of these little critters lead the Ancient Egyptians to hold a different perspective on life and rebirth

© Alamy

Known as kheper, scarab beetles are an enduring image of Ancient Egypt. The insects are most famous for making their dung into a ball and pushing it around for their offspring to be hatched out of. Ancient Egyptians watched the scarab beetles' distinctive trait and related it to the idea of rebirth. The god Khepri was a scarab and he was tasked with pushing the Sun across the sky, causing sunrises and sunsets. The scarab beetle became one of the most important symbols in the entire civilisation and amulets were adorned with the image.

Some animals were deified according to Ancient Egyptian beliefs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were a major part of the economy, with taxes put upon both their ownership and their trade. Farm animals like goats, sheep, pigs, and ducks were also eaten and used for fat, leather and wool but the chicken was not reared until the time of the New Kingdom. Some households kept monkeys as pets and they were trained to retrieve or steal things for their owners. Early Egyptian farmers even tried to domesticate hyenas, but this idea was short-lived as it soon became clear that these wild beasts could not be tamed in the same way as dogs.

The use of animals varied between regions. For instance, bee keeping was more popular in Lower Egypt and the insect soon became a symbol of this part of the kingdom. Honey was a widespread commodity and was used for food as well as makeup and medicine. Bee's wax was used to help mummification and was a very sought after resource. When an animal was killed, the Egyptians ensured that almost nothing was wasted with meat, milk, skin, fat, horns and even the dung all having a purpose.

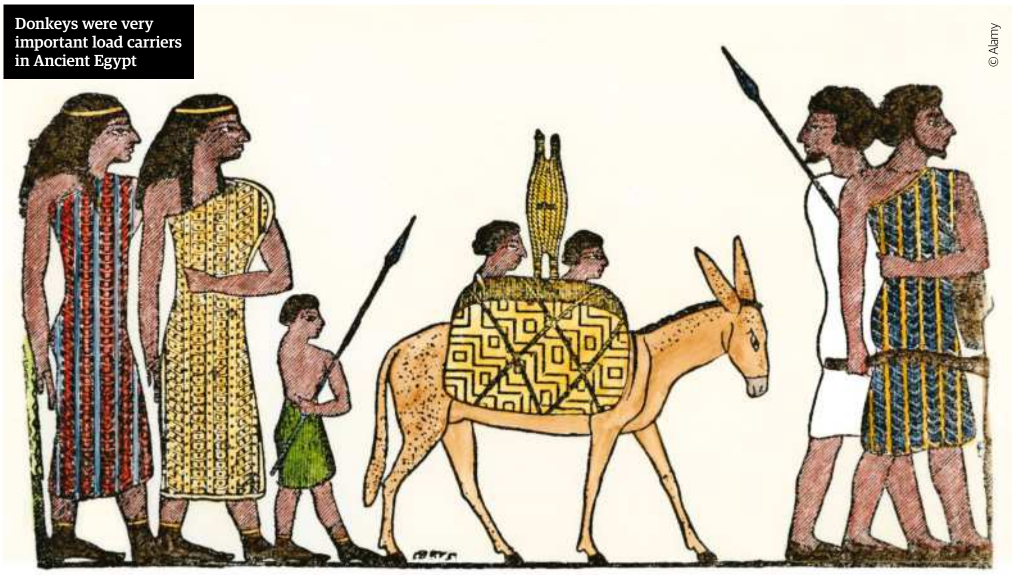
North Africa was home to many wild animals as well as the ones domesticated by the Egyptians. Jackals and snakes such as the asp were popular symbols of Ancient Egypt while antelope and gazelles were hunted for their meat. Dangerous animals such as lions, crocodiles and hippos occasionally came into contact with humans and the Nile was home to flourishing shoreline wildlife such as birds, amphibians and insects. The Nile was vital to the Egyptian way of life and deadly crocodiles and aggressive hippos posed a major threat to traversing the waterway. Because of this, they were both respected highly. For pharaohs, lions and bulls represented their power. Images of a bull viciously trampling over others, or a lion successfully hunting its prey would symbolise the strength of the ruler and of the kingdom that they ruled.

A further use for animals was in warfare. At its peak, the Ancient Egyptian war machine was dominated by chariot-based combat. Powered by one or more horses brought in from conquered settlements, soldiers would wield bows, swords and spears from atop a chariot to cut down and trample enemy infantry. Chariots were one of the most powerful units on the battlefield before the advent of cavalry. Horses weren't initially native to North Africa and only arrived in Egypt after its borders expanded under the New Kingdom. Unlike later Ancient Greek and Roman warfare, horses were very rarely ridden and only the wealthy could afford a trusty steed of their own. Donkeys and mules were used more prominently to transport equipment and supplies both in war and at peace when working the land.

Animals played a major part in death traditions and like people, were often mummified. The Ancient Egyptians believed in an afterlife and anyone that died wanted their possessions taken with them. This included pets and animals they owned so animals as large as cattle were sacrificed, mummified and put into the tomb. In the afterlife, they would once again accompany their former owner. There were even different temples and cemeteries for all of the different animals that

> Images of a lion successfully hunting its prey would symbolise the strength of the ruler and of their kingdom

> "Animals played a major part in death traditions and were often mummified"



Donkeys were very important load carriers in Ancient Egypt

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Gods in the sky

The Ancient Egyptians were fond of birds of prey, as they lived between both heaven and earth

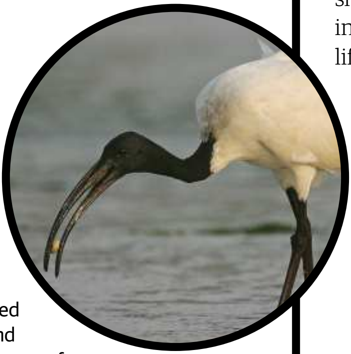
Falcon

Falcons and hawks were the spiritual guardians of the pharaohs. Hieroglyphs show the birds of prey spreading their wings behind rulers and they were believed to be an incarnation of Horus, the god of the sky as well as Montu and Socar, the gods of protection and strength respectively.

Vulture

Vultures were important birds to the Ancient Egyptians and stood for not one, but two gods. They portrayed the ideas of royalty and protection and the gods they illustrated were Nekhbet and Mut. Often depicted on temple ceilings, they were drawn with their wings stretched out.

Ibis



Now extinct in modern-day Egypt, ibis were linked to Thoth, the god of knowledge. Common on the banks of the Nile, many have been found buried and mummified in ancient catacombs. They were also associated with the gods Tehuty and Djehuty who held the power of language and had the intelligence to educate and teach men new skills.

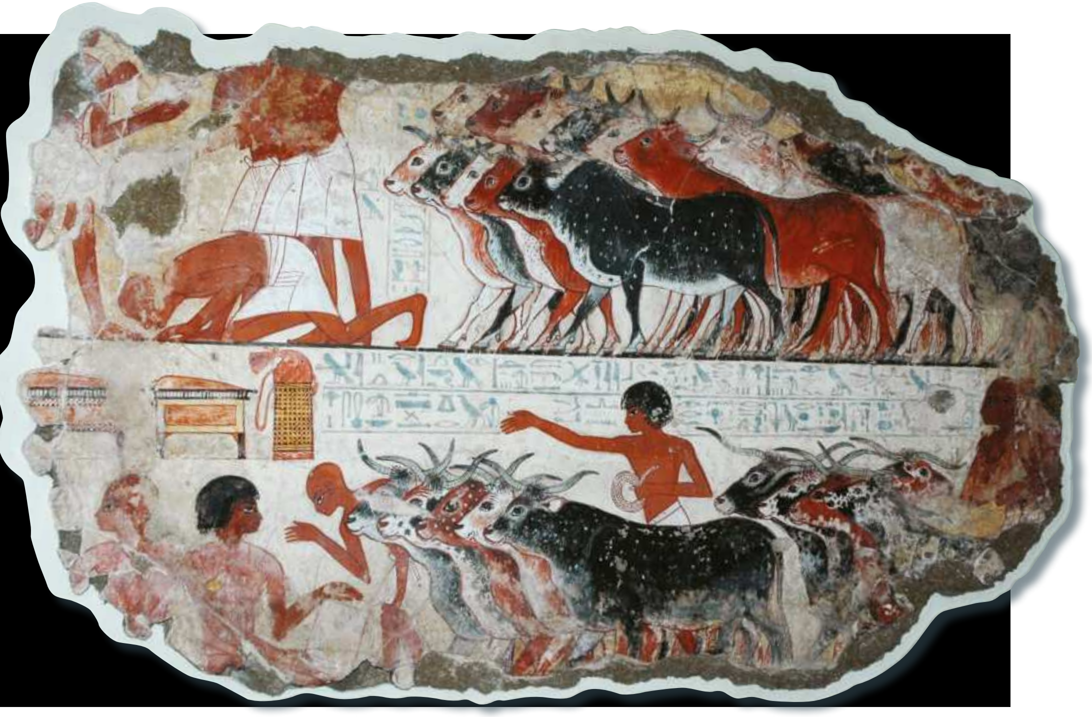
Ostrich

As well as birds of prey, the Ancient Egyptians admired the world's largest land bird, the ostrich. The bird was seen as the embodiment of order and was aligned to the goddess Ma'at, who had an ostrich feather attached to her headdress. This garment was very popular with Egyptian women as a result.

Animal agriculture

The importance of cattle and other work animals made the Ancient Egyptians proficient at crop raising

Some of the first domesticated animals in human history came from Ancient Egypt. Husbandry was a vital part of Egyptian life and using the Nile as a valuable and enduring source of water, irrigation and animal rearing was mastered. Cattle were farmed in high numbers as were sheep, goats, pigs and in later years, horses. The cow in particular was an incredibly important farmyard animal to Egypt as they provided milk, meat, leather, fat and horns, all of which had their uses in society. They pulled ploughs and would transport the wheat and barley grains that were produced during harvest season, which would produce both wheat and barley. Farmers had to be very protective of their cattle and they were so valuable that if left unmarked or even just unattended, they would often be taken by a rival farmer. As with many other animals, cows were sacred and were linked to the goddesses Hathor, Isis and Nut.



A multitude of birds could be found on the banks of the Nile and were held sacred by the Ancient Egyptians

Ancient Egyptians associated scarab beetles with creativity

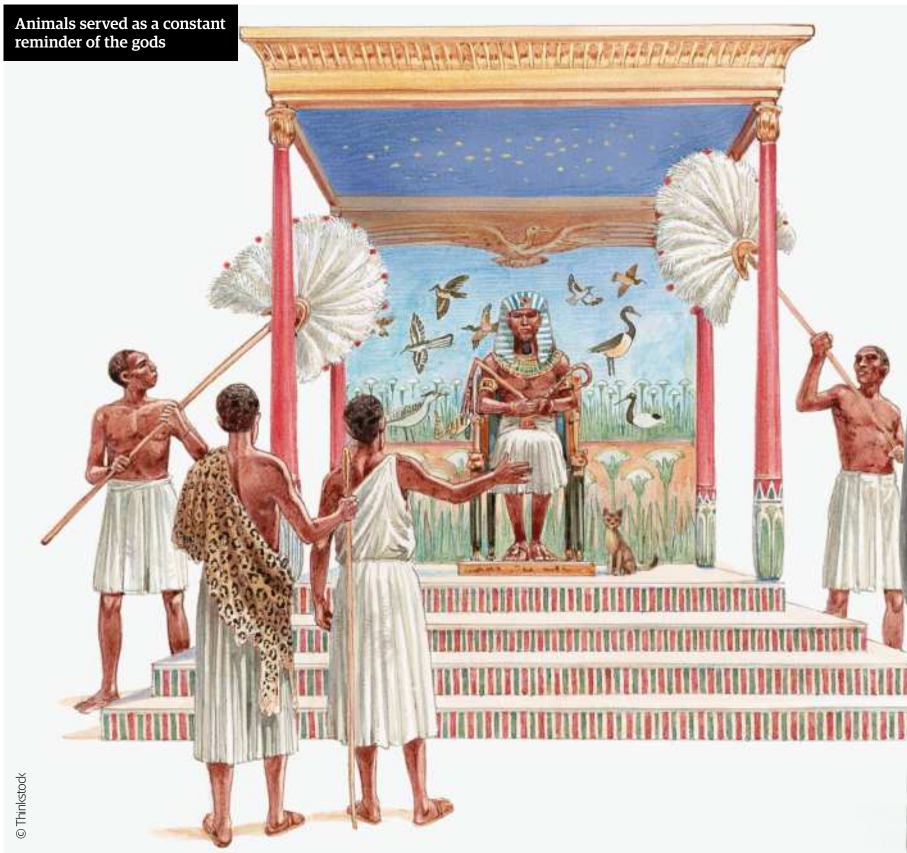
didn't make it into their owner's list of wanted possessions to take to the afterlife.

Animals weren't just killed to escort their owner to the afterlife; they could also be their food on the journey to Duat, the realm of the dead. This was usually fish or fowl and both were mummified carefully so they would be preserved correctly. It was also believed that wild animals like crocodiles and hippos would be as much of a danger in the passage to the afterlife as they were during life.

Sacrifices were so common that during every year of Ramses III's 31 year reign, 16,000 cattle and 22,000 geese were sacrificed. Many animals were sacrificed to their corresponding gods. For instance, dogs were given as an offering to the jackal-headed Anubis, but cats were an exception and were never killed for the benefit of the gods. Over 8 million dog skeletons and 500,000 mummified ibises have been found by archaeologists in the catacombs of the Saqqara burial site.

Many Egyptian gods were believed to be in the image of animals native to Egypt and acted as their representatives in daily life. Bast had a cat's head and Sobek had a crocodile's head for example. Geese, who were one of the symbols of the god of the Earth, Geb, were given free run of the house and garden to ensure that the god was happy.

The importance of animals to the Ancient Egyptians can still be seen in hieroglyphics and statues. It's still disputed whether animals and pets were worshipped as deities, but what is certain is that pets were beloved by the Egyptians and animals played a huge role in society.



Animals served as a constant reminder of the gods

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Magic & medicine

From bizarre treatments steeped in superstition to surgical procedures still in use today, this is the fascinating world of healing in Ancient Egypt

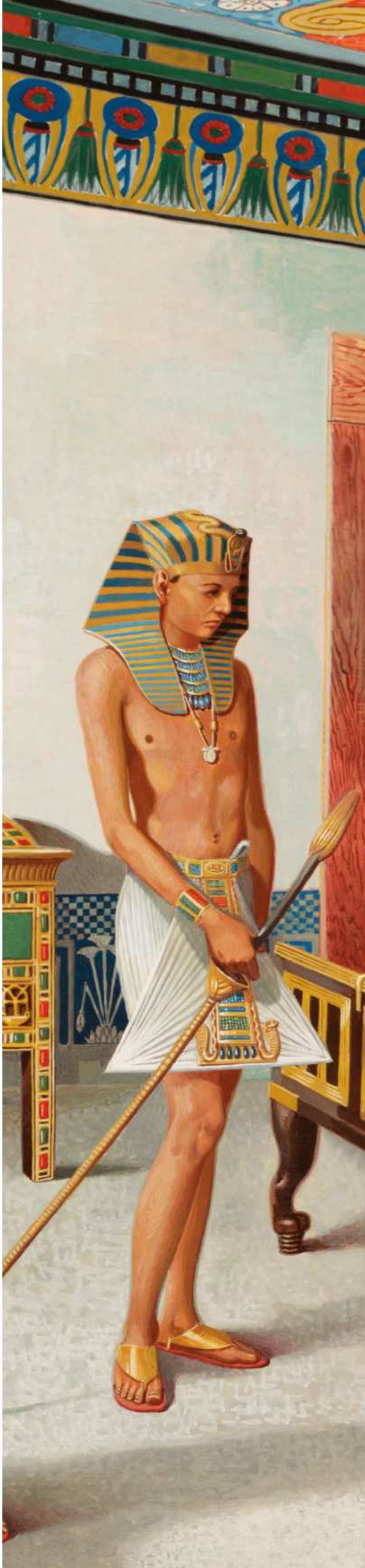
Take a stroll through the history books and it's hard to ignore just how weird and gruesome the world of medicine was in ages gone by. And the kingdoms of Ancient Egypt were no exception, either. Over its 3,000 years of existence, Ancient Egypt became an epicentre for culture, art, architecture and engineering. Records, such as the Edwin Smith Papyrus, have revealed that the time of the pharaohs also produced an incredibly broad approach to ailments and disease. This was an age where science, magic and religion were one. Sages, physicians and healers were all part of the same potent superstition and created an ancient medicinal cabinet that aided health.

However, those medical treatments were all well and good if you could last long enough to actually receive it. The pharaohs may have been off conquering far away lands and building monuments that seemingly pierced the sky, but for the normal Egyptian folk who weren't lucky enough to bathe in milk and be washed in oils every day, the Egypt of the ancient world was a dangerous and merciless place to live. Diseases ran rife in cities, while deadly parasites lurked in the purportedly life-giving waters of the Nile. Egypt was a place of ambition and innovation, but it was also a land of death.

> A healer wouldn't just tend to the rich and the poor – one discovered relief shows a physician attending the childbirth of a queen

Life expectancy was, in a word, terrible. Records imply mortality rates in infants were catastrophically high, and for those who made it into adulthood, those senior years were short-lived at best. Women tended to live no later than their early- to mid-20s, while men fared marginally better with mortality rates in the mid- to late-20s. These figures could well have worsened still during the 'dark periods' of Ancient Egyptian history (otherwise known as the First, Second and Third Intermediate Periods), when the breakdown in civil government and the influx of foreign people and external pathogens may have made such a poor situation even worse.

Much of our understanding comes from the preserved remains of Egypt's ancient citizens and nobles. It's from these age-old cadavers we can infer some intriguing details about the diseases and health hazards faced by those who won the mortality lottery of infancy and young adulthood. Infections of the eye were common, as one would expect living in a North African country surrounded by wind-whipped sand. Poisoning also seems to have been quite common, more from the treatments than anything else – scorpions and serpents were sometimes used to treat afflictions, and some could cause blindness, paralysis and even death.



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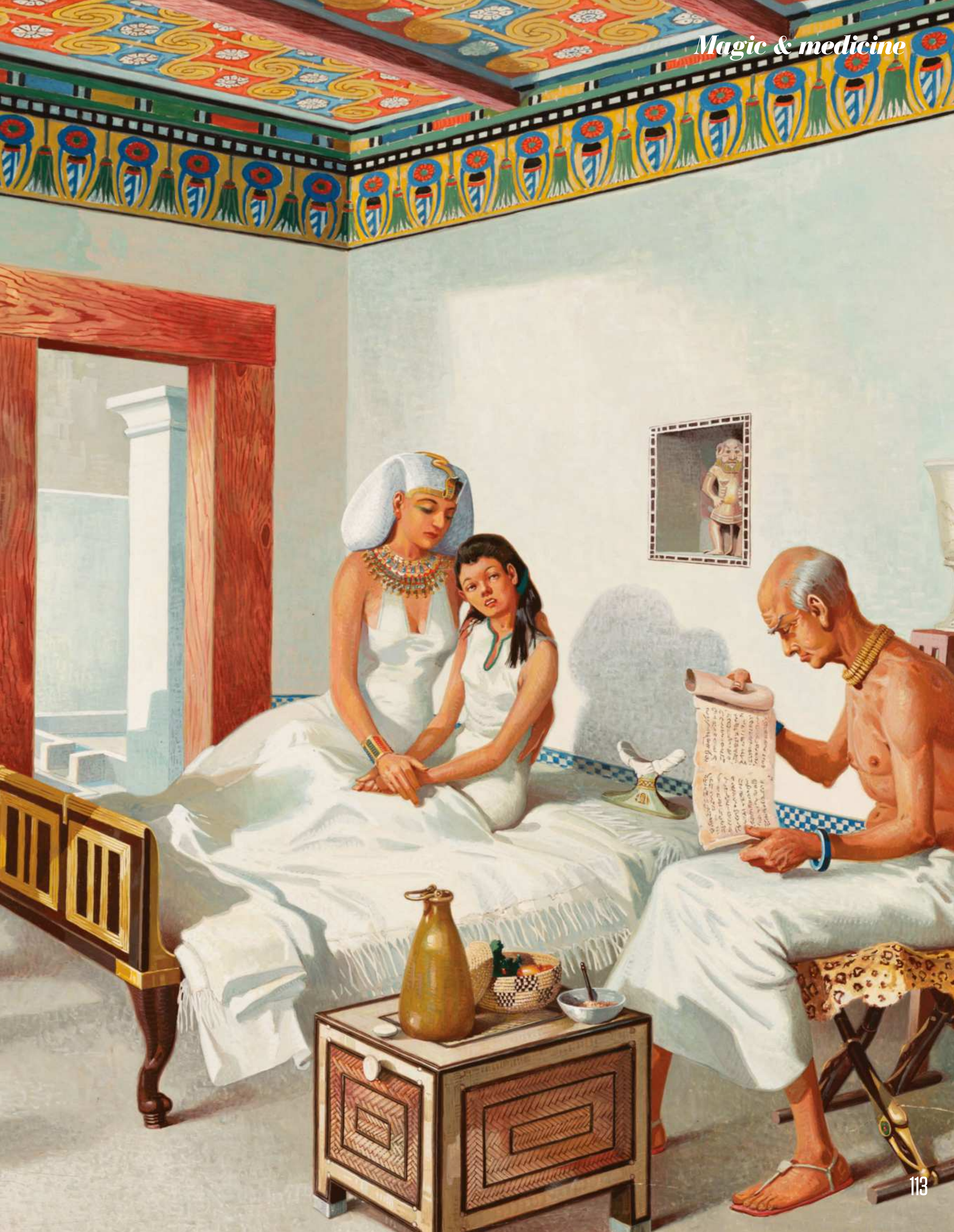


Priests and doctors weren't always one and the same, but many shared positions in both areas, such as this priest depicted treating a musician for blindness

The Ebers Papyrus

The papyri unearthed in the last few hundred years have radically changed our understanding of ancient Egyptian medicine. Egyptian doctors recorded countless procedures and diagnoses in detail, creating a unique insight into how a healer in this era identified and treated everything from inflammation to depression.

The Ebers Papyrus, purchased by German Egyptologist Georg Ebers in the winter of 1873-1874 in Luxor, is one such document. A 100-page scroll roughly 20 metres long, the papyrus dates back to around 1550 BCE, making it one of the oldest medical papyri ever discovered. Another early medical document, the Brugsch Papyrus (1300-1200 BCE) provides similar information to the Ebers.

The Ebers Papyrus covers a wide variety of ailments, illnesses and disorders, as well as over 700 remedies and treatments. It contains incantations and spells to banish disease-causing demons alongside incredibly detailed – and accurate – descriptions of the heart. The Egyptians correctly identified that the heart was at the centre of the body's blood supply. The papyrus also states that the heart is responsible for pumping four separate fluids around the body – blood, urine, tears and semen – much in the same way medieval doctors believed the body was based on a balance of very similar 'humours'.

A number of instances of tuberculosis, or more specifically *spinal* tuberculosis have been found, as have traces of kidney stones (which can be deadly if not treated accordingly). Evidence also suggests outbreaks of polio, influenza and smallpox across the different eras of Ancient Egypt. Plague was an issue too, just as it was in medieval and early modern Europe, over a thousand years later. A 'year of pestilence' was recorded that made reference to a potential outbreak of plague, but, like most aspects of a time this far in the past, it remains in conjecture.

Then there was the Nile. The lengthy river was the lifeblood of Ancient Egypt; it was thanks to its proximity that the earliest pharaohs could sow healthy crops in a Saharan environment, while turning the swampland of the Delta (a series of small rivers and tributaries that poured into the Mediterranean Sea) into one of the most agriculturally lush and fertile stretches of land in the world. And yet it also proved as much a danger to the Egyptians as a life-giving treasure.

Some prescriptions were remarkably close to modern standards, but some were bizarre – such as the use of bacteria-filled dung

The Nile was teeming with parasites, so for those who bathed in it or drank from it, the chances of becoming ill were likely considerable. Those who went wading through its cool waters, most notably along the irrigation channels, were in danger of crossing paths with parasites like the Schistosoma worm. This dastardly little blighter would bore its way through your feet or legs and lay eggs in your bloodstream. These worms would hatch and work their way through the body, causing a terrible amount of harm and making the host sick and frail. And for those who dared to drink water from wells that drew on the Nile, they risked the chance of ingesting guinea worms. Female guinea worms would often travel through the body to a suitable nesting site, usually the legs, and force a host into a weak and sickened state.

So how did the Egyptians hold back the shadow of Osiris, the god of death? Despite their distant place in history, Ancient Egyptians were quite advanced in their ability to diagnose a variety of ailments and illnesses (both long-forgotten and familiar). The remedies they used were almost entirely drawn from nature, so many of them have survived to today as modern herbal medicines and alternative treatments.

Almost all of our knowledge of these diagnoses come from the incredibly detailed records in the Edwin Smith Papyrus (c. 1600 BCE), the Berlin Medical Papyrus (c. 1250 BCE), the Kahun Papyrus (c. 1900 BCE), the London Medical Papyrus (c. 1250 BCE) and the Ebers Papyrus (c. 1600 BCE) – each of which details the Egyptians' knowledge of disease, anatomy and healing. These texts express an incredibly precise understanding of human anatomy – the practice of mummification gave those involved a deeply intimate knowledge of the body's composition and natural balances. And considering that many physicians were also priests, it seems possible surgeons would have cut their teeth in the sanctity of mummification before getting to grips with the living. And that intimate knowledge was what gave the Ancient Egyptian healer the power to deal with almost any ailment.

"When you come across a swelling of the flesh in any part of the body of a patient and your patient is clammy and the swelling comes and goes under the finger," reads the Ebers Papyrus (c. 1500 BCE) in regards to diagnosing swelling and a potential tumour, "then you must say to your patient: 'It is a tumour of the flesh. I will treat the disease. I will try to heal it with fire since cautery heals'. When you come across a swelling that has attacked a channel, then it has formed a tumour in the body. If when you examine it with your fingers, it is like a hard stone, then you should say: 'It is a tumour of the channels. I shall treat the disease with a knife.' "

The use of fire remains an alarming means of treating any sort of swelling, but the most striking element is the bedside manner. Here we see an aspect of Ancient Egyptian medicine that's often missing from medical information from other ancient cultures, and one that typifies the importance of sages, healers and physicians in Egyptian society. During this time, the mental welfare of a patient was just as important as the ailment affecting them physically.

Surgery was another important factor of day-to-day Ancient Egyptian medical practice. More importantly, it wasn't a speciality as it is now, but a necessity for every physician to know and practise whenever and wherever it was needed. Most procedures that took place, according to the evidence we have to draw from, were focused on external trauma, and none was ever conducted inside the body. Interestingly, many of the surgical procedures we commonly see today – eye surgery, dental surgery and those involving childbirth – were either never performed or no evidence has been found to confirm their existence at this time. More bizarre still is that no records exist relating to dental or eye surgeries involving nobles or even the pharaohs themselves – an especially curious factor when you consider the importance of the eye in Egyptian symbology. The only evidence available confirms the use of topical remedies for eye maladies and nothing more.

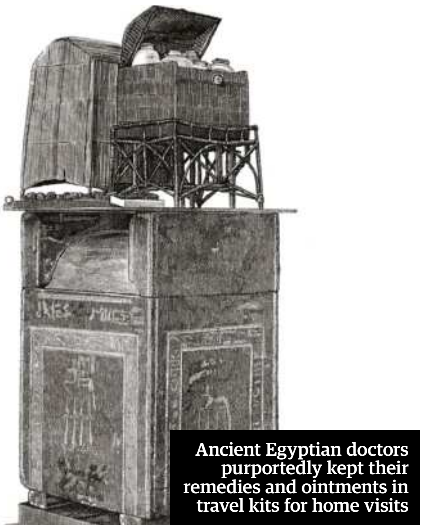
Surgery became an advanced part of Ancient Egyptian medical practice because, unlike other civilisations at this stage in their development, the Egyptians had already developed a robust written language. This enabled physicians and healers to record certain diagnoses and treatments, and mark those that worked and those that didn't. Sadly, no early medical textbooks have survived from this period, but texts such as the Edwin Smith Papyrus are believed to have been based on such notes and collected experience, hence the importance they play in our understanding of how such practices were conducted.

The Egyptians divided potential surgery cases into three separate categories: treatable, contestable and untreatable. A treatable case was something a physician could solve immediately, while a contestable diagnosis was based on the assessment that a patient could survive in their current state. If the patient showed resilience, a healer could then select the appropriate surgical procedure to conduct.

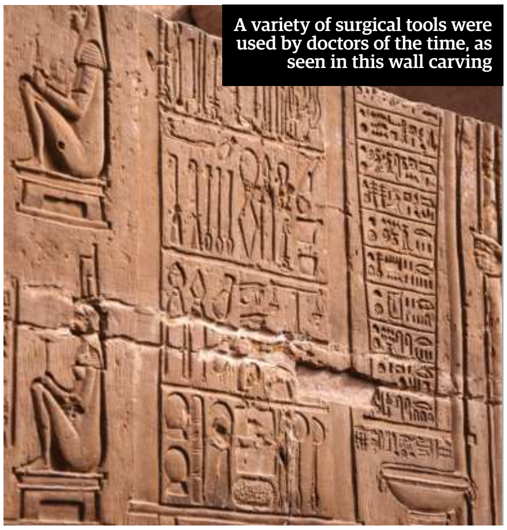
All surgeries were topical only. No invasive procedures were performed, purely because no forms of anaesthetic were available at the time, save alcohol. We know that the Egyptians reset bones with splints and stitched up large open wounds and complications of the skin. They were also, rather unsurprisingly, extremely adept at the use of bandages.

But that doesn't mean healers weren't afraid of using a blade as part of their treatment. The practice of circumcision was also performed by physicians. Although we don't know whether this was ever performed as a cultural or religious requirement, but the recovered papyri make

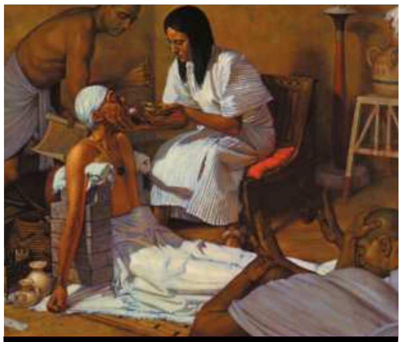
> The healing arts were a closely guarded profession and many doctors passed the knowledge down from father to son



Ancient Egyptian doctors purportedly kept their remedies and ointments in travel kits for home visits



A variety of surgical tools were used by doctors of the time, as seen in this wall carving



A startling level of patient care was employed by ancient Egyptian healers

Day in the life of a healer

06:00 am

Since medicine was deeply rooted in the religious doctrine of ancient Egyptian society, a healer would have likely begun their day in the temple. Sekhmet, the goddess of healing, would have been the likely point of tribute, as well as other smaller deities such as Heka or Serket.

08:00 am

A doctor would have treated anyone with an ailment, but it is likely the elite would have been the priority on a given day. We could easily expect a healer to be called into the home of a noble or even the palace in the middle of the night, should an incident arise.

10:00 am

Doctors of this time may have operated from a specific building (especially for procedures and surgeries), but they would have often conducted house calls around the city. As you would expect, a healer would bring a number of pre-prepared remedies and tools with them.

12:00 pm

A healer would also take the time to meet local and foreign traders in the markets or bazaars of the principality they work in. The success of a doctor's practice depended on the resources at their disposal, and it's likely they would source rarer items from traders and merchants.

15:00 pm

A doctor might be called upon to operate on soldiers in times of war, or even those injured during the construction of a monument. Since no anaesthetics were available at the time, alcohol was used to dull the pain. Surgical procedures would be bloody, but doctors were proficient in treating wounds and amputations.

19:00 pm

With most of his major cases and responsibilities taken care of, a doctor might have returned to the temple to consult with High Priests, or to simply find a quiet moment to reflect and be at one with the gods. A healer might have also had duties to attend to at the temple itself.

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frequent reference to the uncircumcised nature of foreign peoples who they encountered.

A number of tools recovered from across the Ancient Egyptian eras have been identified as being involved in the rituals of mummification, which was a process in which internal surgery would have been required. Some of the tools recovered, including early forms of scalpel, suggest that such instruments must have existed for circumcisions, amputations and other operations to be performed.

Alongside the removal of cysts and tumours, cases of amputations being performed have been recorded. There was also a good chance of surviving such a gruesome experience; the experience of the Egyptian physician and a vast knowledge of the medicinal properties of the natural resources around them meant that these ancient GPs were capable of treating incredibly severe problems. An amputee, for instance, would have had their wound treated with willow or even cauterised in some cases.

That knowledge of natural remedies stretched far beyond surgery and fed into the everyday practices of a local healer. Mint and caraway were used to treat chest pains; mustard seeds, aloe and juniper were used to treat headaches; poppy seeds were used in the treatment of both insomnia and burns; camphor counteracted bouts of vomiting; mustard seeds were used as emetic when needed, while mint was used to stop the effects. As Egypt expanded its borders during the Old, Middle and New Kingdoms, new ingredients and remedies would have become available as traders from Libya, Canaan, Nubia and those from further afield in Asia arrived in Egypt.

The Ancient Egyptians seemingly had a remedy for everything, including the use of aloe to treat epileptic fits

However, all these records of anatomical knowledge and practical remedies seem to fly in the face of the deeply religious fabric of Ancient Egyptian society. Magic formed as much a part of the Egyptian view of the universe as science, so it's unsurprising that this broad theological view informed the practice of medicine.

The presence of demons or malevolent spirits were sometimes presented or diagnosed as being the cause of a particular ailment. By mindset, Egyptian doctors took a monistic view of ailments: there was no mental or physical distinction. That's not to say that these ancient healers ignored the welfare of the mind - the translations that make reference to putting the patient at ease and exploring the problem with them drive this point home - however, we can infer the mind was seen as a victim of an ailment rather than the actual cause. This does raise questions as to how the Ancient Egyptians would have approached or dealt with cases of mental health disorders, but with the intrinsic link to the most powerful churches of the time, consultation with High Priests and the visitation of temples to pray for divine intervention would be considered.

Practices also relied on a process known as 'sympathetic magic'. Like many other cultures, the Ancient Egyptians held a great deal of respect and admiration for the animal kingdom and believed the positive traits of a particular beast (courage, resilience, a hardy constitution) could be transmuted by the consumption or application of its flesh. For instance, a pig's eye might be used as part of a treatment to cure blindness, with the hope the animal's sight would pass over to the patient.

These practices, from the reciting of incantations to the application of a salve or remedy, all fed into the basic way in which a doctor viewed a patient's being: the channel theory. The concept worked much in the same way as the Buddhist chakra or the medieval European theory of 'balancing the humours'. The body, mind and soul were viewed as one, and were a series of 46 physical channels that ran through the body and intersected at the heart. In other words, they meant veins, arteries and intestines. It was a commonly held belief that demons and other forces would block these channels, causing internal strife.

Of course, the diagnosis of internal spiritual strife could easily be taken as a shorthand for Ancient Egyptian doctors having to balance a lack of understanding of more complicated medical issues with an intrinsic need to appease the deep-seated religious DNA of the time. It was perhaps their way of consolidating the two ideas.

Whatever the reasoning may have been, the healer of Ancient Egypt remains one of the most intriguing members of its society. And so it seems rather fitting that Imhotep, the polymath physician (a man often cited as the first true pioneer of medicine) would be deified a thousand years after his death and become a symbol of healing and care. The archetype of the Egyptian physician was just that: an individual of many talents who straddled multiple principles while bringing healing to the people of the kingdom.

Most remedies and medicines administered by an Egyptian healer were taken from nature - such as the pressing and grinding of flowers

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"Magic formed as much a part of the Egyptian view of the universe as science"

Defining moment

Peseshet in control

2500 BCE

Peseshet, who lived during the Fourth Dynasty, is the first recorded woman to have been involved in medicine. Some credit her as a physician, but she was officially recorded as the 'lady overseer of the female physicians'. This reference alone is staggering - not only was Peseshet involved in the burgeoning medical marvels of her time, but there was also a contingent of female physicians in operation then. We know she existed because her son Akhethotep, an important dignitary, kept her stele in his *mastaba* in Giza.

Timeline

2750 BCE

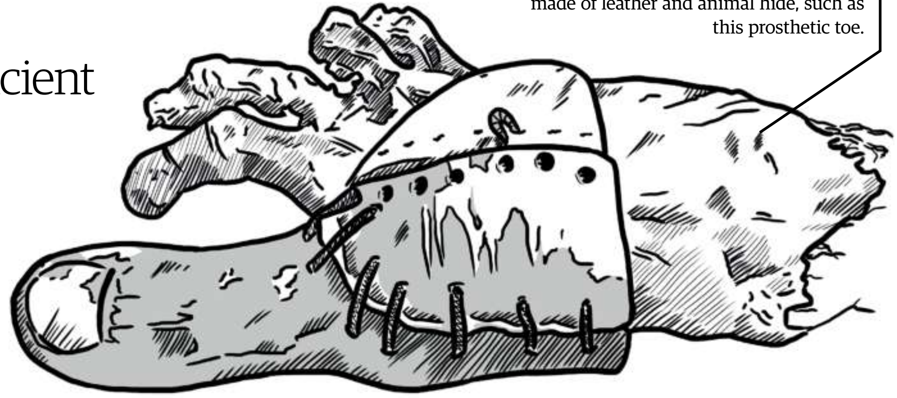
- **First recorded surgery performed**
  According to the Edwin Smith Papyrus and other resources, the very first instance of topical surgery is performed by an Egyptian physician.
  c.2750 BCE
- **Imhotep is born**
  Around this time, the polymath and architect of Egypt's first pyramid is born. Imhotep is also rumoured to have authored the Edwin Smith Papyrus.
  2650 BCE
- **Imhotep becomes healing demigod**
  Roughly a century after his death, the pioneer of Egyptian medicine becomes semi-deified as a god of healing and medicine.
  2500 BCE
- **Kahun Papyri written**
  A collection of texts is gathered together around the time of Amenemhat III's reign. These documents include a selection of hymns and medical records.
  1825 BCE
- **Kahun Gynaecological Papyrus written**
  Sometimes considered part of the Kahun Papyri, but an intriguing document in its own right, the Kahun Gynaecological Papyrus deals exclusively with women's health in ancient Egypt.
  1800 BCE

Tools of the trade

Taking a look inside the Ancient Egyptian healer's toolbox

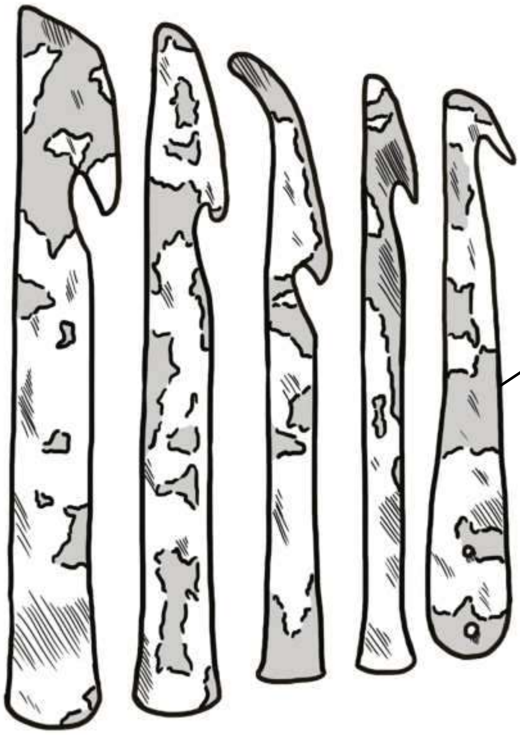
Prosthetics

Since amputations were a common procedure performed by healers, prosthetics also played an important part in the rehabilitation process. Some were made of wood or wax, but many were made of leather and animal hide, such as this prosthetic toe.



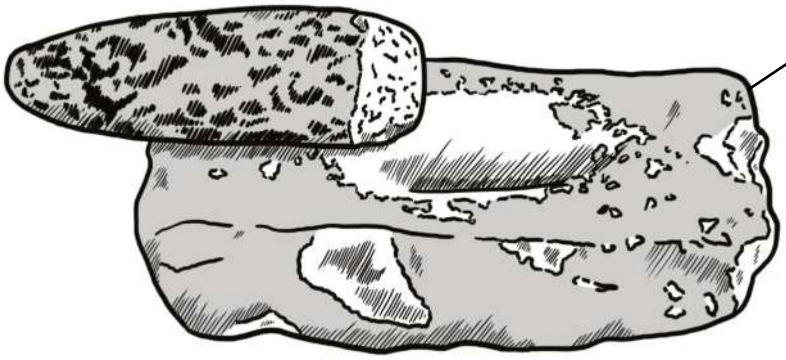
Scalpels and blades

While cutting tools were common in the practice of mummification, they were also an important part of a healer's medicine bag. Blades such as these would have been used to bleed blisters, cut away abscesses and more.



Pestle and mortar

The mortar and pestle played a vital part in a healer's everyday life - salves and pastes were often made from natural resources.



Defining moment

Edwin Smith Papyrus written

1600 BCE

This papyrus remains the most detailed and enlightening medical text recovered from the time of the pharaohs. It details 48 case histories, covering everything from infections to serious trauma. It lists the procedures for assessing a patient, including the recording of visual clues and smelling the wound, as well as the taking of the pulse. Interestingly, it is in the Edwin Smith Papyrus that the word 'brain' appears for the first time in recorded history.

Defining moment

Herodotus visits Egypt

440 BCE

Greek historian Herodotus visits Egypt during the reign of King Cambyses II (the Persian monarch who successfully invaded and conquered Egypt) and spends most of his time in the Delta region. He records details of the mummification process and the practice of medicine at the beginning of the Persian occupation. However, some of his findings have been contradicted by archaeological discoveries.

Ebers Papyrus written
One of the oldest and most influential of the recorded medical papyri, the document is later bought from a dealer in Luxor (Thebes) in 1873.
1600 BCE

Berlin Medical Papyrus written
The Berlin Medical Papyrus, otherwise known as the Brugsch Papyrus, is a companion document to the Ebers' scroll and includes information on fertility and contraception.
1250 BCE

London Medical Papyrus written
This particular document mainly deals with remedies and treatments and lists a total of 61 recipes. 25 of these are considered 'medical', while the others are magical in nature.
800 BCE

Homer references Egypt
More of an epic poet than a traditional historian, Homer nonetheless includes references to Egyptian healers in *The Odyssey*, stating that "In Egypt, the men are more skilled in medicine than any of human kind."
800 BCE

Rosetta Stone decrypted
The Rosetta Stone is finally decoded, proving an invaluable cypher for reading and translating hieroglyphics. From this discovery, the famous medical papyri would spill their secrets.
1822

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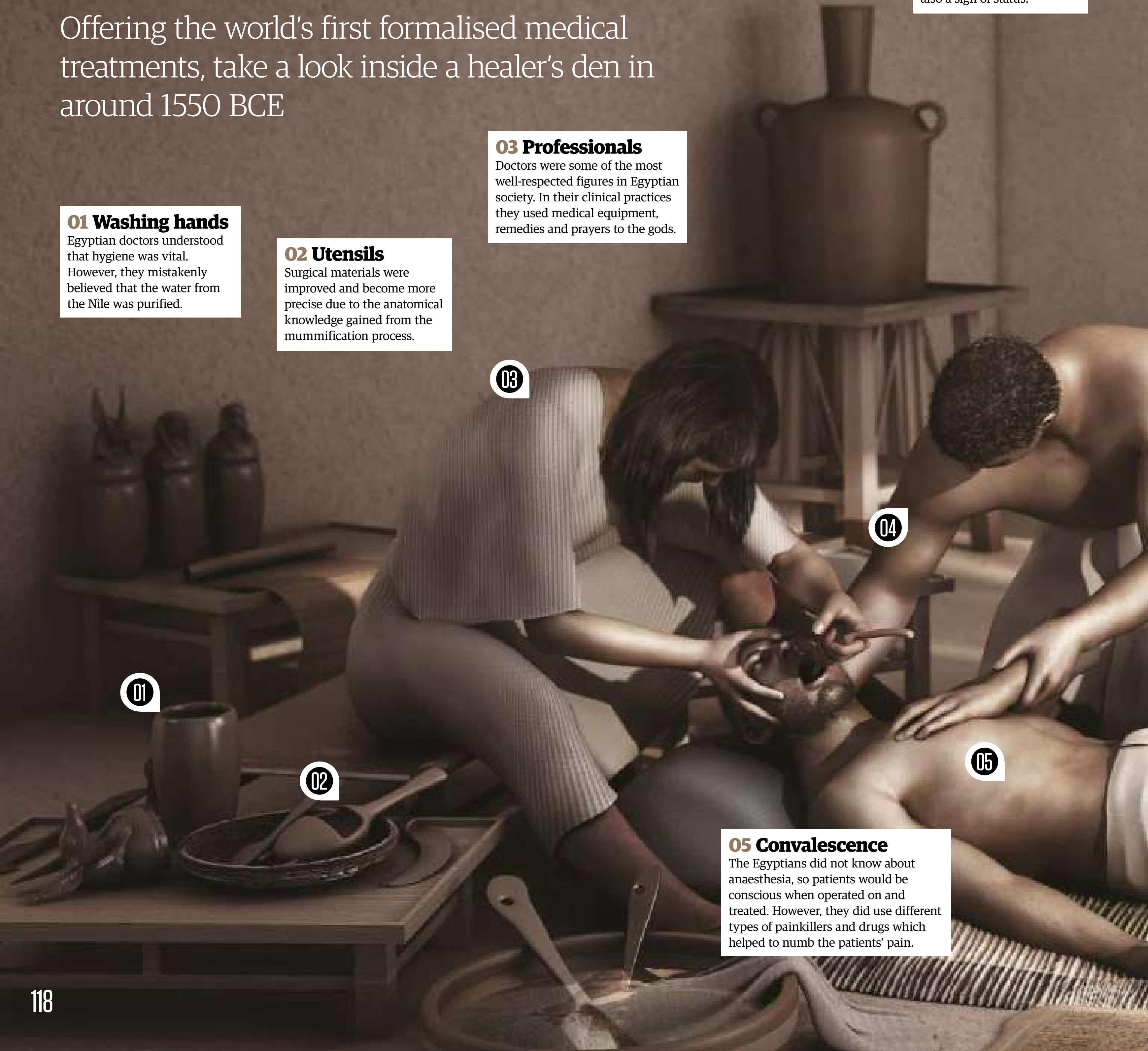
Egypt's medical trailblazers

Offering the world's first formalised medical treatments, take a look inside a healer's den in around 1550 BCE



01 Washing hands
Egyptian doctors understood that hygiene was vital. However, they mistakenly believed that the water from the Nile was purified.

02 Utensils
Surgical materials were improved and become more precise due to the anatomical knowledge gained from the mummification process.

03 Professionals
Doctors were some of the most well-respected figures in Egyptian society. In their clinical practices they used medical equipment, remedies and prayers to the gods.

04 Assistants
Most doctors would have assistants to keep the patient immobilised and help with equipment. An assistant was also a sign of status.

05 Convalescence
The Egyptians did not know about anaesthesia, so patients would be conscious when operated on and treated. However, they did use different types of painkillers and drugs which helped to numb the patients' pain.

During the Ancient Egyptian civilisation, the first examples of what we would in modern times call doctors emerged. Imhotep is considered by many to be the first great doctor, and during the time period of 260 BCE the doctor, architect and priest diagnosed over 200 ailments and prescribed medical treatments for them all. Such was his influence that after he died he was worshipped as a god of healing.

That Imhotep was also a priest wasn't unusual as for the Egyptians - a god-fearing people with many different deities - treatment such as painkillers and cleaning a wound went hand in hand with asking higher powers for help. It was not uncommon for a witch doctor to accompany a doctor on their rounds, making spells aimed at making the treatment more effective. Despite this strong focus on the supernatural, Ancient Egyptian doctors also made very important discoveries about how the human body worked, and they knew that the heart, pulse rates, blood and air were important to the workings of the human body and that a weak heartbeat meant that the patient had serious problems to face.

Ancient papyri have also been found that make specific reference to organs such as the spleen, lungs and the heart, which shows that doctors could treat illnesses individually. In fact, there was a high degree of specialisation among Egyptian physicians, with some treating only the head or the stomach, while others were eye doctors and dentists. Surviving medical papyri also show empirical knowledge of anatomy, injuries, and practical treatments. Doctors would perform tasks such as stitching wounds, setting broken bones and amputating diseased limbs.

These first doctors held highly prestigious positions due to their invaluable knowledge of different illnesses and treatments - not to mention their ability to read and write. They were trained in the medical schools of temples and travelled throughout the land to heal royal families and those who could afford their expertise. Egyptian doctors used to commonly classify illnesses into three categories: those related to the action of evil spirits; to clear causes such as wounds, and those with unknown causes, which were attributed to the will of the gods.

06 Pharmacopoeia

Remedies with medicinal properties were recorded in papyrus that included instructions on their preparation. It is through such material that much medical information from this period is still available.

07 Witch doctor

Despite having a good understanding of the human body, Egyptian doctors also believed in the power of the spirits to heal. A witch doctor would make the necessary magic spells to make the treatment more effective and increase the chances of success.

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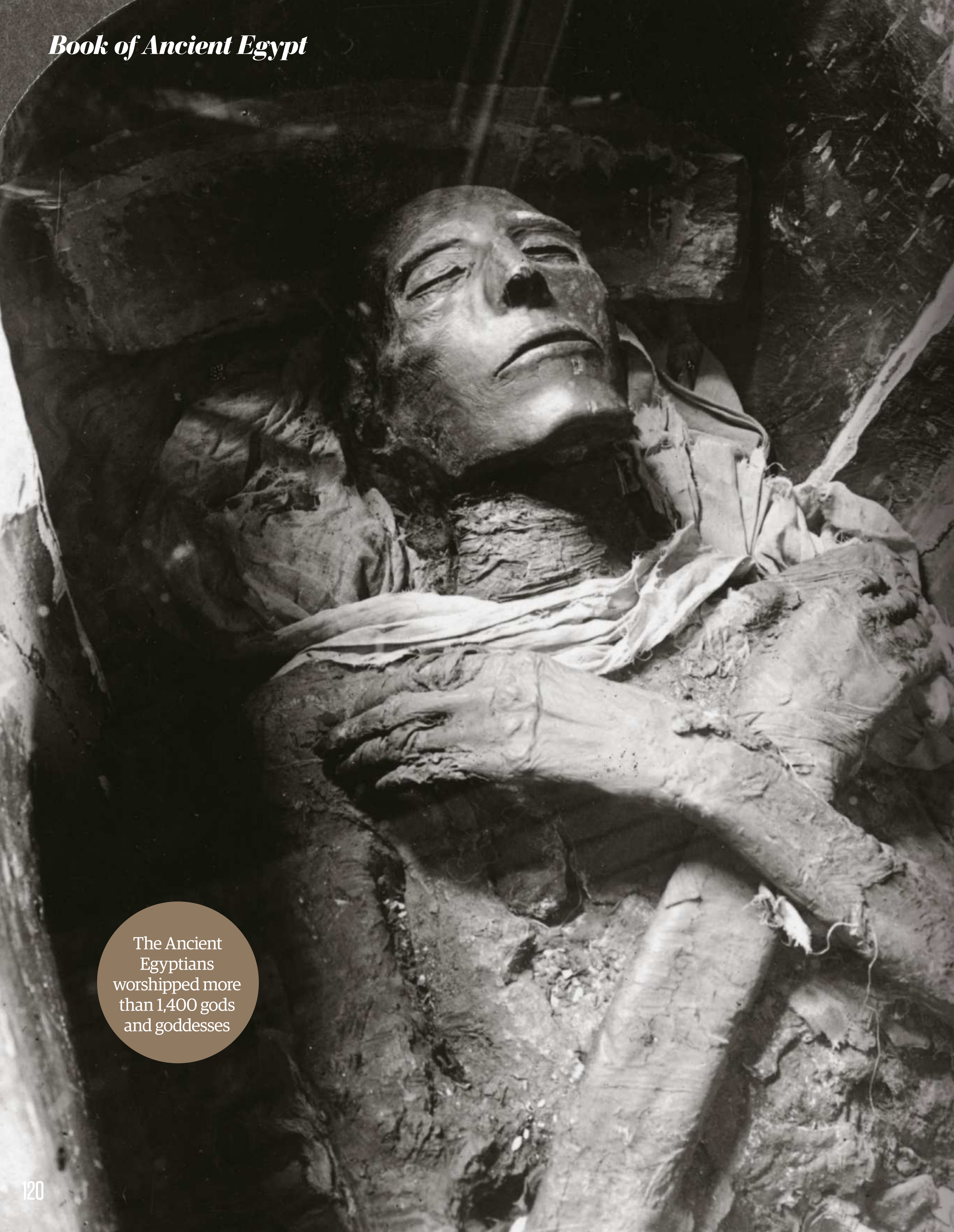


The Ancient Egyptians worshipped more than 1,400 gods and goddesses

Death, burial & the afterlife

It was home to a thriving civilisation, but it was in the land beyond the grave that the Egyptians believed they truly came to life

Beneath the burning hot sands of the Eastern Desert lie the remains of one of the greatest civilisations the world has ever seen. The Ancient Egyptians flourished along the banks of the River Nile between the third and first millennia BCE, with an empire that stretched as far north as modern-day Syria and as far south as Nubia in northern Sudan.

These people led rich lives. The fertile soil gave rise to a thriving agricultural society that developed some of the most advanced farming techniques of the ancient world. Their building projects were unparalleled, and they forever altered the Egyptian skyline with their towering temples and imposing pyramids. Their armies were undefeated, their science was revolutionary, and their art provided a blueprint for the Renaissance masters.

But it was in death that the Egyptians believed they truly lived. Their faith in the afterlife was unshakeable, but entry was not guaranteed. The spirit of the dead would first have to navigate through a perilous underworld, battling gods, monsters and gatekeepers until it reached the Hall of Judgement. Here, it would be brought before 42 divine judges, to whom it would have to prove its worthiness for the afterlife. If successful, the spirit could then proceed to the Weighing of the Heart ceremony. Its heart, which contained a record of all its good and bad deeds, was weighed against the feather of the goddess Ma'at. If the heart was heavier, it was thrown to the crocodile-headed demoness Ammut and the soul was cast into the darkness. If the scales balanced, the soul could pass on to the Field of Rushes – a heavenly reflection of life on Earth.

With so much to compete with in death, the Ancient Egyptians spent their lives preparing for it. As well as trying to avoid sin, funerary items were purchased, coffins were commissioned and tombs were built, many of which were more elaborate than their earthly homes.

But it's the preparation of the body itself after death that continues to capture the imagination; it is at the centre of our enduring fascination with death in Ancient Egypt.

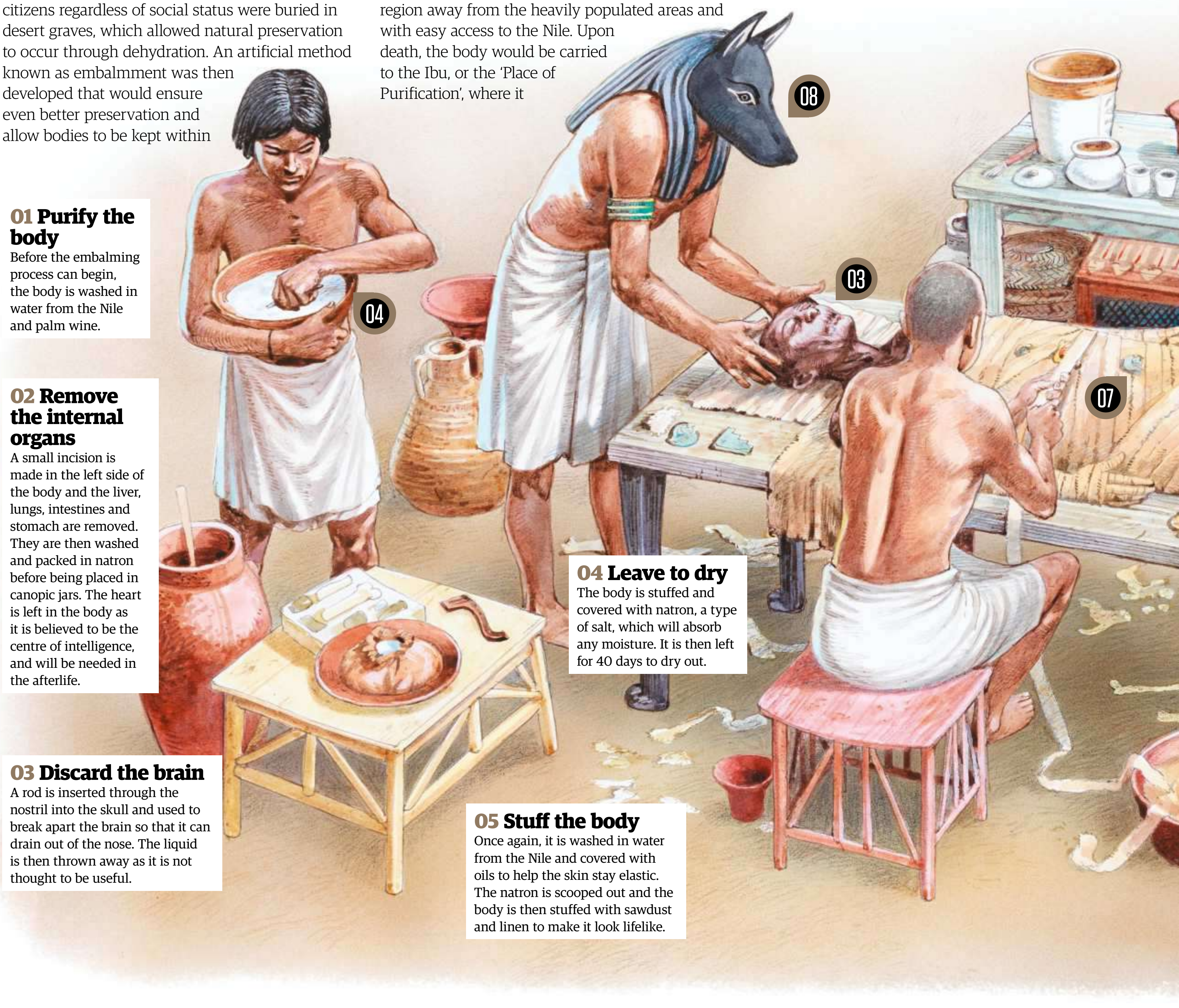
Mummification

The gory embalmment process was able to produce mummies that would last for eternity

Eternal life wasn't just about preserving the spirit. The deceased's body also had to preserved, as the Ancient Egyptians believed the soul (*ba*) and life force (*ka*) had to return to it regularly to survive. To prevent the body decaying, it underwent a lengthy and gruesome mummification process. Developed and refined over millennia, it allowed Ancient Egypt to produce some of the best-preserved mummies in the world, and we can now gaze upon the faces of men, women and children almost exactly as they were more than 2,000 years ago.

The first mummies in Egypt date back to approximately 3500 BCE. Before that time, all citizens regardless of social status were buried in desert graves, which allowed natural preservation to occur through dehydration. An artificial method known as embalmment was then developed that would ensure even better preservation and allow bodies to be kept within tombs. The most complicated mummification process was developed in about 1550 BCE, and is considered the best method of preservation. With this method, the internal organs were removed, the flesh dehydrated, and then the body was wrapped in linen strips. This was an expensive process that took about 70 days to complete, so only the very rich could afford it. Working class people were treated with an alternative method of preservation that involved liquidising the internal organs with cedar tree oil, draining them out through the rectum and then placing the body in a salty substance called natron to dehydrate it.

Embalming took place in the Red Land, a desert region away from the heavily populated areas and with easy access to the Nile. Upon death, the body would be carried to the Ibu, or the 'Place of Purification', where it would be washed in river water. It was then taken to the *per nefer*, or 'house of mummification', which was an open tent to allow for ventilation. Here it was laid out on a table ready to be dissected by the embalmers. These men were skilled artisans who had a deep knowledge of anatomy and a steady hand. They were also often priests, as performing religious rites over the deceased was an equally important part of the embalming process. The most experienced priest carried out the major parts of mummification, like the wrapping of the body, and wore a jackal mask as he did so. This symbolised the presence of Anubis - god of embalming and the afterlife - during the mummification.



01 Purify the body
Before the embalming process can begin, the body is washed in water from the Nile and palm wine.

02 Remove the internal organs
A small incision is made in the left side of the body and the liver, lungs, intestines and stomach are removed. They are then washed and packed in natron before being placed in canopic jars. The heart is left in the body as it is believed to be the centre of intelligence, and will be needed in the afterlife.

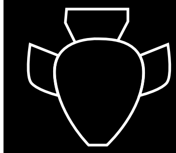
03 Discard the brain
A rod is inserted through the nostril into the skull and used to break apart the brain so that it can drain out of the nose. The liquid is then thrown away as it is not thought to be useful.

04 Leave to dry
The body is stuffed and covered with natron, a type of salt, which will absorb any moisture. It is then left for 40 days to dry out.

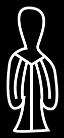
05 Stuff the body
Once again, it is washed in water from the Nile and covered with oils to help the skin stay elastic. The natron is scooped out and the body is then stuffed with sawdust and linen to make it look lifelike.

The Egyptian embalmer's guide to amulets

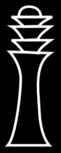
These charms were placed between the mummy's layers of linen, but what did each one do?



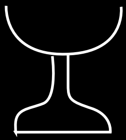
The Heart
This protected the heart, believed to be the most important organ. The underside was often inscribed with spells from the Book of the Dead that would help the spirit navigate the underworld.



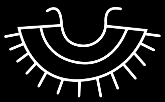
The Knot of Isis
Knots were regularly used as amulets as it was believed they bound and released magic. They were said to protect the wearer from harm, and were placed on the neck.



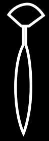
The Djed
This represented the backbone of Osiris, the god of the afterlife. It was wrapped close to the spine and enabled the mummy to sit up in the afterlife, ensuring its resurrection.



The Headrest
According to the Book of the Dead, if placed under the neck, this amulet provided physical comfort for the deceased and also prevented them from being decapitated.

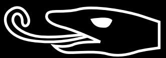


The Collar
This was placed on the mummy's neck and allowed it to free itself of its bandages in the afterlife.

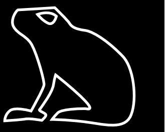


The Papyrus Sceptre
The papyrus plant represented new life and resurrection. It was believed to give the dead the energy and vitality to survive the terrifying ordeals of the underworld.

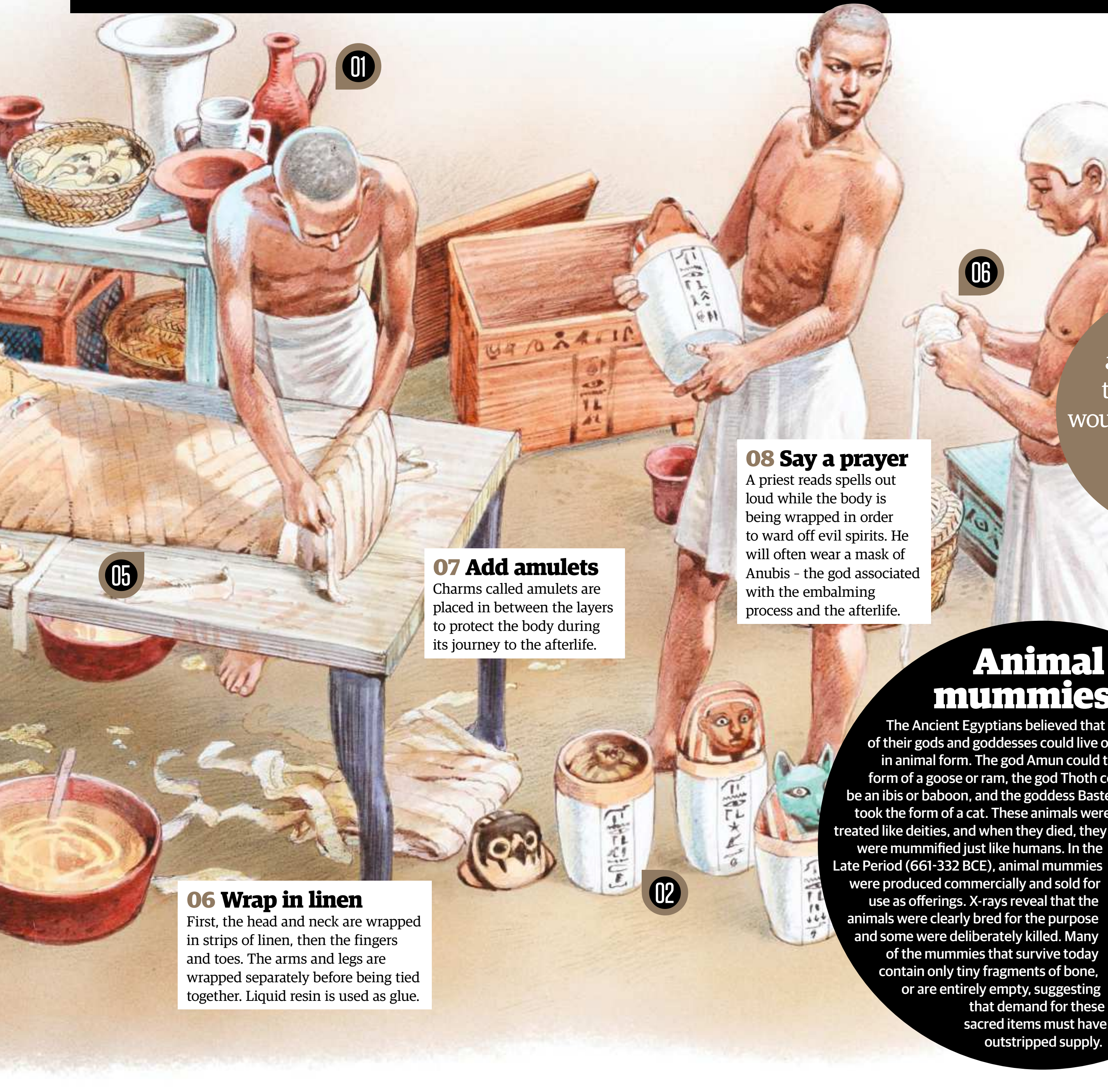
The Two Fingers
Placed near to the incision through which the organs were removed, these may have been intended to 'hold' the incision sealed and prevent evil spirits from entering the body.



The Serpent
This was placed anywhere on the body and prevented the spirit from being bitten by snakes in the underworld.



The Frog
This was believed to contain the powers of Heqet, the frog-headed goddess of life and fertility. When placed on the mummy, it would allow it to be brought back to life.



08 Say a prayer

A priest reads spells out loud while the body is being wrapped in order to ward off evil spirits. He will often wear a mask of Anubis - the god associated with the embalming process and the afterlife.

07 Add amulets

Charms called amulets are placed in between the layers to protect the body during its journey to the afterlife.

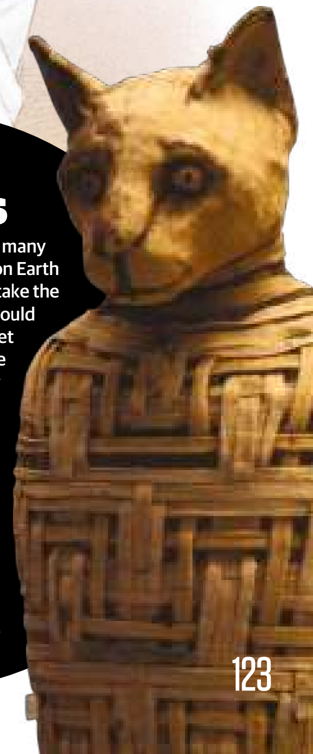
06 Wrap in linen

First, the head and neck are wrapped in strips of linen, then the fingers and toes. The arms and legs are wrapped separately before being tied together. Liquid resin is used as glue.

> When a pet cat died, the household would shave off their eyebrows to signify their loss

Animal mummies

The Ancient Egyptians believed that many of their gods and goddesses could live on Earth in animal form. The god Amun could take the form of a goose or ram, the god Thoth could be an ibis or baboon, and the goddess Bastet took the form of a cat. These animals were treated like deities, and when they died, they were mummified just like humans. In the Late Period (661-332 BCE), animal mummies were produced commercially and sold for use as offerings. X-rays reveal that the animals were clearly bred for the purpose and some were deliberately killed. Many of the mummies that survive today contain only tiny fragments of bone, or are entirely empty, suggesting that demand for these sacred items must have outstripped supply.



A stone sarcophagus inside a tomb in the Valley of the Kings

Burial

The Ancient Egyptians' resting place could be nothing short of what they experienced in life

> Tombs contained everything needed in the afterlife, including toilets

Long before their deaths, wealthy Egyptians built luxurious tombs for themselves and filled them with objects that would protect and assist them in the afterlife. This ranged from simple items like bowls, combs and clothing to chariots, furniture, weapons and jewellery. The treasures found in Ancient Egyptian tombs are among some of the most valuable in the world, and show that status symbols were considered just as important for the afterlife as they had been on Earth. Food was also stored in the tomb and left as offerings after the tomb had been sealed in order to sustain the life force (*ka*) - one of the five elements that made up the human soul. Even depictions of food painted onto the walls of the tomb were believed to provide nourishment for the dead.

The day of burial was when the deceased moved from the world of the living to the world of the dead. Both poor and rich were given a ceremony of some kind, as it was considered essential in order for the spirit to pass to the afterlife. Wealthy and royal Egyptians received an elaborate funeral, during which a procession of mourners and dancers accompanied the coffin to a tomb, which was either below ground or within a *mastaba* or pyramid. Also present were two women called 'kites', whose job was to mourn overtly and inspire others to do the same. Remembrance of the dead ensured passage to the afterlife, and displays of grief were thought to help the deceased's cause in the Hall of Judgement.

On arrival at the burial site, a priest performed the Opening of the Mouth ceremony. The mummy was propped upright while spells were uttered and a ceremonial blade pressed against the mouth (to allow it to breathe, eat and drink), eyes (to allow it to see) and limbs (to allow it to move). Food and gifts that would assist the spirit in the afterlife were then offered and a funerary banquet was held. Finally, the coffin was carried into the tomb, where royal mummies would be placed within a stone sarcophagus. This was intended to provide an extra layer of protection against grave robbers, who were rife in the Nile valley. Spells and prayers were recited, and then the tomb sealed, never to be opened again… or so they hoped.

Mummy of a man who lived during the Ptolemaic Period

Shabti

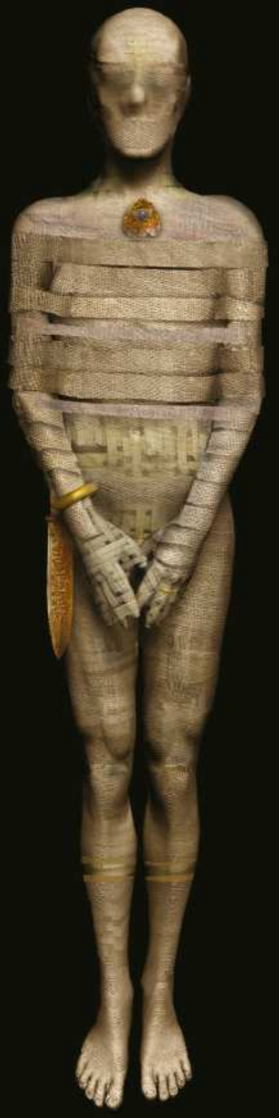
These figurines were buried alongside the dead, and were believed to act as servants in the afterlife. They could be made of wood, clay or stone and were often quite small, although earlier life-sized models have been found. Many of them are depicted carrying hoes and baskets, as Ancient Egyptians believed that in the afterlife they would be allocated a plot of land that they would have to farm and maintain. Over 1,000 of them were found in pharaoh Taharqa's tomb alone, making them one of Ancient Egypt's most common artefacts.

Tutankhamun's tomb as it was discovered in 1922

The Sarcophagus of Nitocris

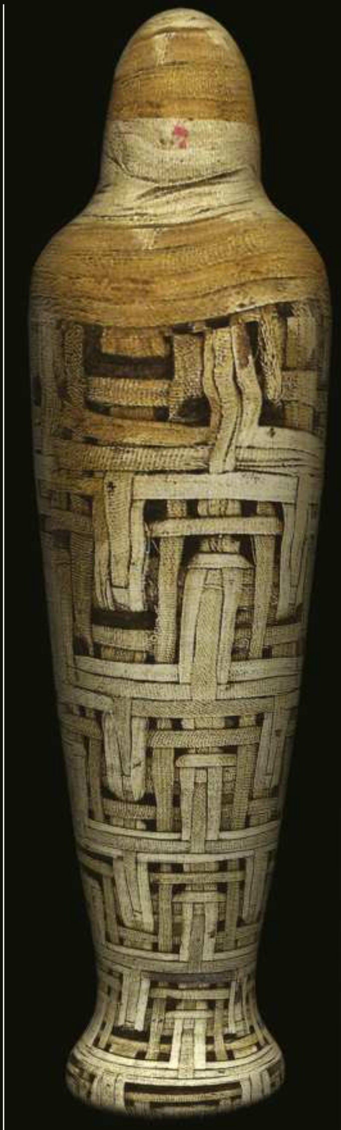
The many layers of a mummy

Mummification was not the final step in the quest for eternal life. The body would be placed in several cases and coffins - sometimes up to eight - before eventually being laid to rest



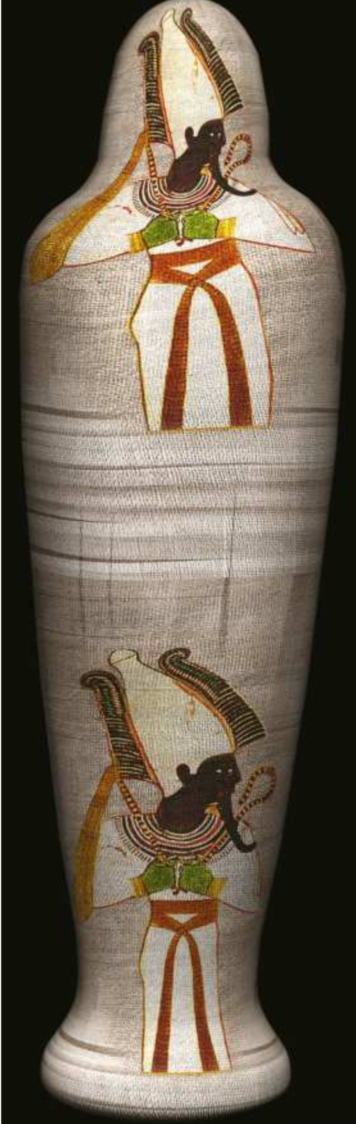
01 Objects for the afterlife

Once the body had been wrapped in layers of linen, items like jewellery and daggers were placed on the mummy for use in the afterlife. A scarab amulet was hung from the neck to help guide the soul during the Weighing of the Heart ceremony.



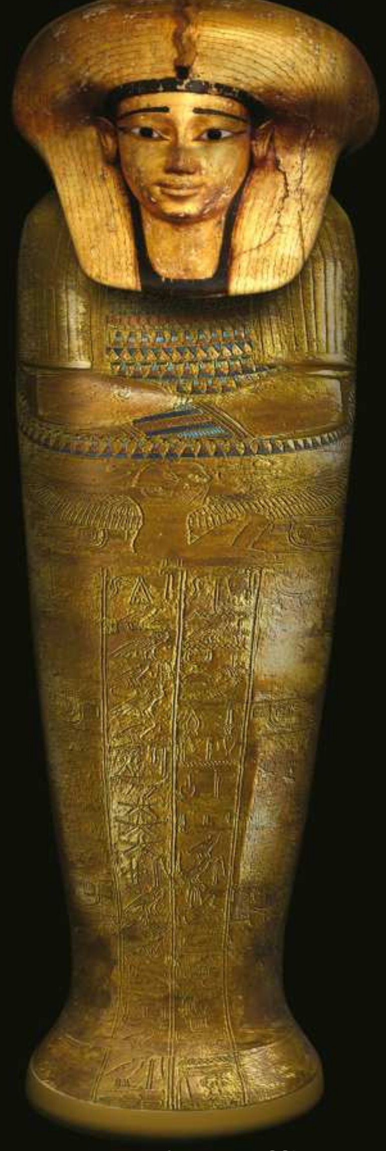
02 Cartonnage case

After mummification, a cartonnage case was created. This was formed around a straw and mud core, to which plaster and linen bandages soaked in resin or animal glue was applied, similar to papier mâché. Once it set, the case was split open, the stuffing removed and the body placed inside.



03 Decoration

Another cartonnage case was added and then a layer of plaster or gesso - made from resin and chalk powder - was painted over the top. Natural dyes like indigo, madder and ochre were used to create intricate designs on the cartonnage, particularly depictions of the god of the underworld, Osiris.



04 Wooden coffin

The body was placed in an anthropoid wooden coffin. Those of royalty may have been painted with gold leaf and decorated with precious jewels. A death mask made of cartonnage, wood or precious metals was placed on the head to ensure that its soul could recognise its body.

LEGACY

Get to grips with how this ancient and advanced society has influenced how we live today

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Identify the greatest inventions and discoveries we have inherited from this ancient society

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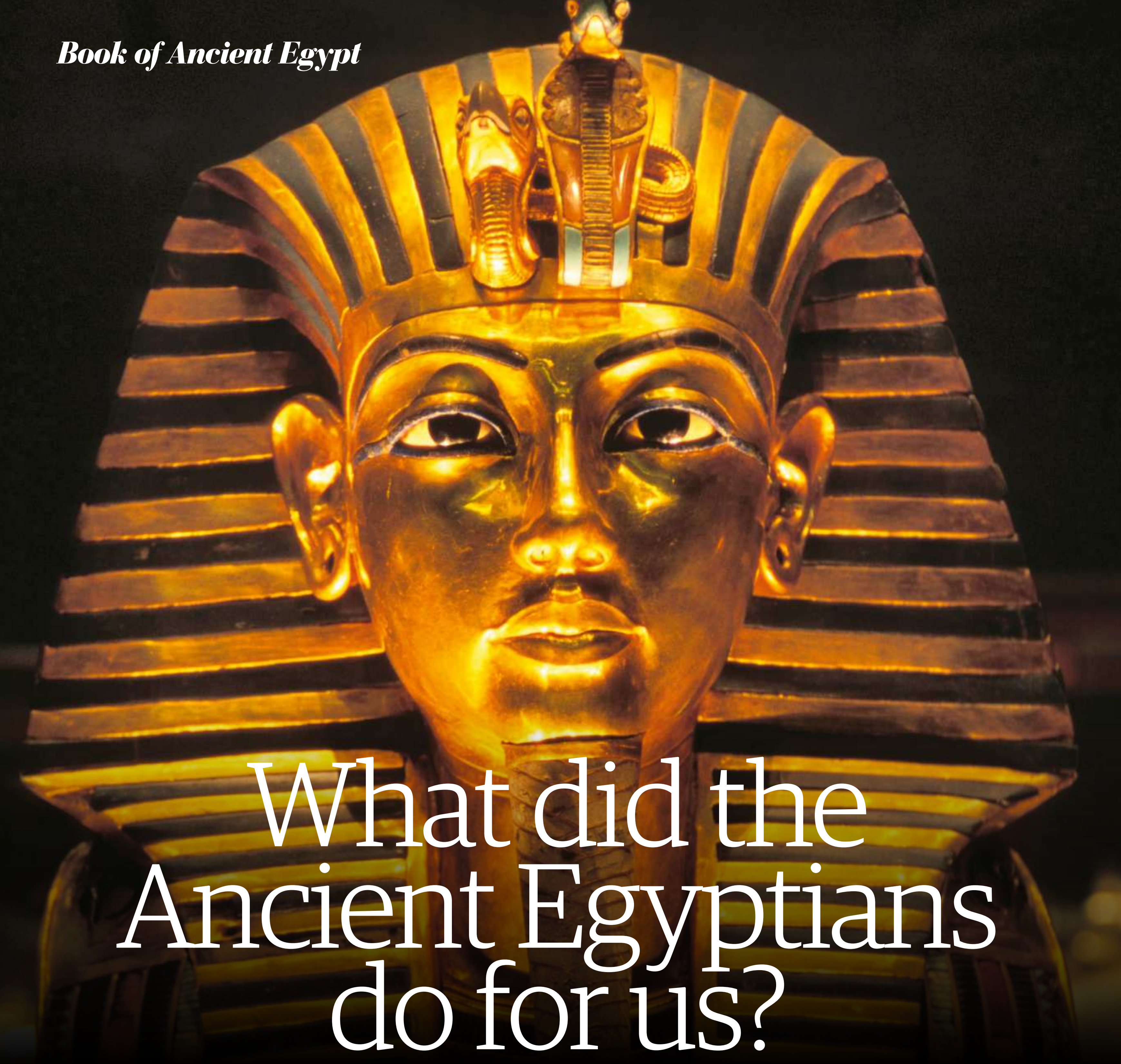
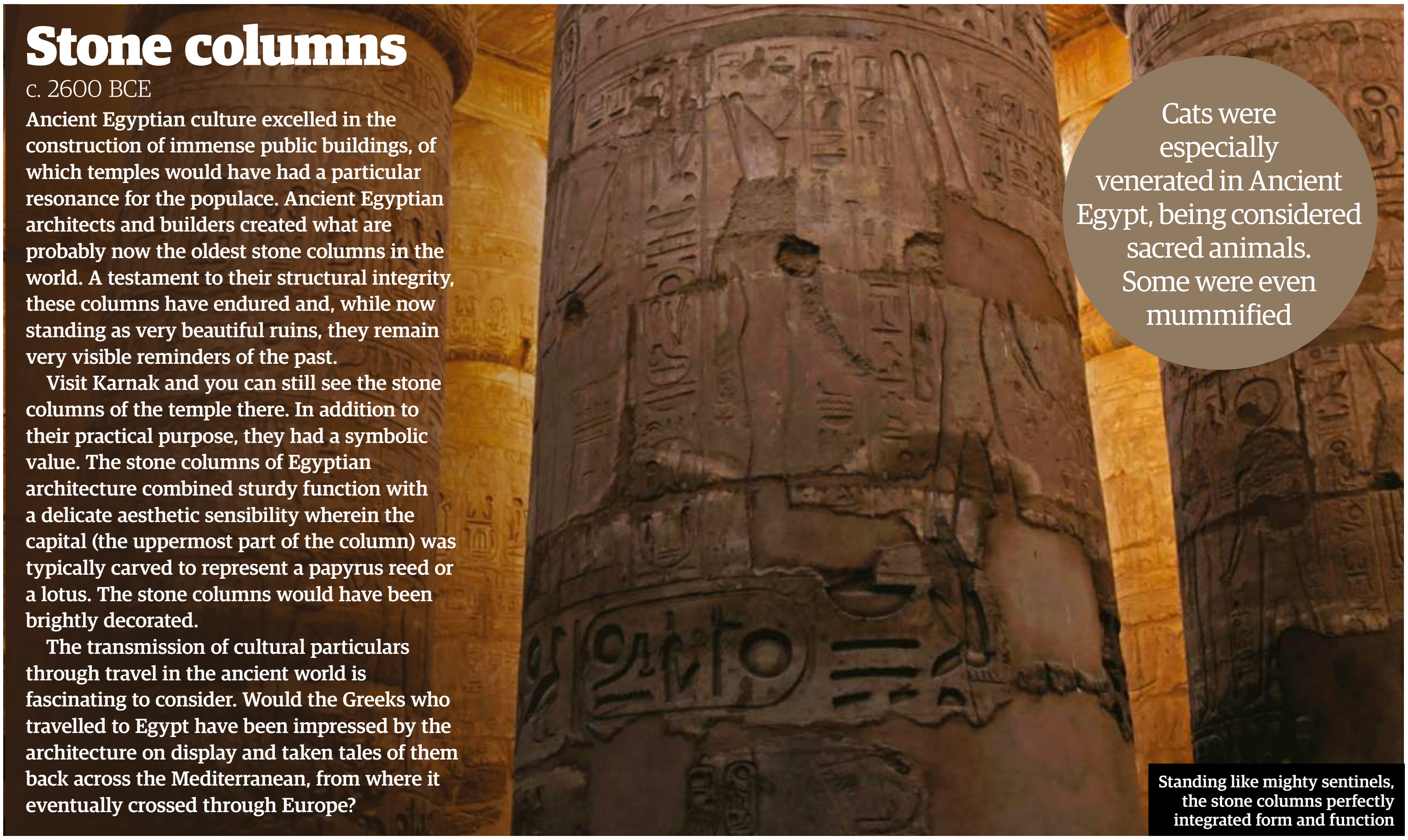


What did the Ancient Egyptians do for us?

An unimaginably advanced and well-educated society, the Ancient Egyptians were the brains behind inventions and discoveries that have prevailed into modern times

The Ancient Egyptians' fascination with science and new technology resulted in inventions - such as the calendar and door lock - which are still used today. In some cases, their innovations combined form and function in quite beautiful ways.

Of a culture aware of its own processes and history, scholar Ian Shaw has commented that "The Egyptian sense of history is one in which rituals and real events are inseparable - the vocabulary of Egyptian art and text very often makes no real distinction between the real and the ideal." The inventions and discoveries listed here indicate the modest and the more expansive ways in which the Ancient Egyptians pulled together the real and the ideal. From developments in personal hygiene, to projects as globally meaningful as the calendar or systems of astronomy, the Ancient Egyptians' inventive spirit aided the development of human culture over several millennia. Since the early 19th century in particular, this has been a source of fascination. So, perhaps this is a society that should be regarded with gratitude for all that they accomplished. Of course, they did it for their own immediate benefit, but one wonders if, somewhere deep down, they had a sense that they were doing it for posterity, too.



Stone columns

c. 2600 BCE

Ancient Egyptian culture excelled in the construction of immense public buildings, of which temples would have had a particular resonance for the populace. Ancient Egyptian architects and builders created what are probably now the oldest stone columns in the world. A testament to their structural integrity, these columns have endured and, while now standing as very beautiful ruins, they remain very visible reminders of the past.

Visit Karnak and you can still see the stone columns of the temple there. In addition to their practical purpose, they had a symbolic value. The stone columns of Egyptian architecture combined sturdy function with a delicate aesthetic sensibility wherein the capital (the uppermost part of the column) was typically carved to represent a papyrus reed or a lotus. The stone columns would have been brightly decorated.

The transmission of cultural particulars through travel in the ancient world is fascinating to consider. Would the Greeks who travelled to Egypt have been impressed by the architecture on display and taken tales of them back across the Mediterranean, from where it eventually crossed through Europe?

Cats were especially venerated in Ancient Egypt, being considered sacred animals. Some were even mummified

Standing like mighty sentinels, the stone columns perfectly integrated form and function

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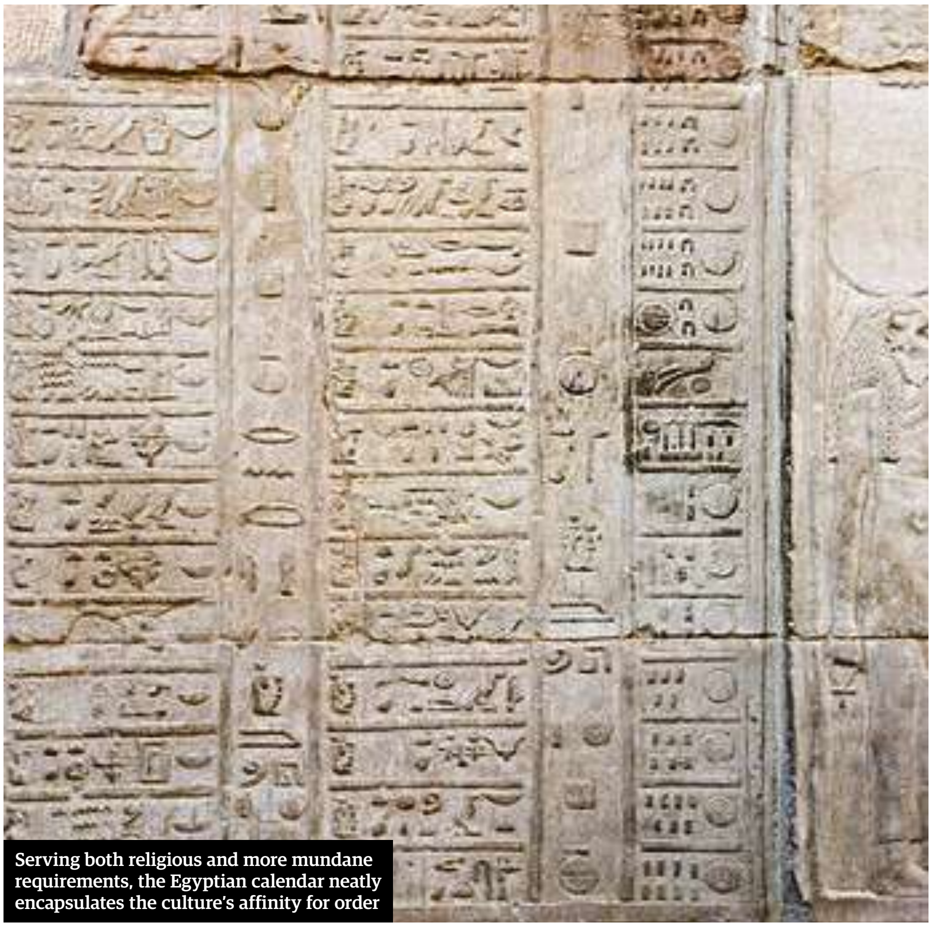


Serving both religious and more mundane requirements, the Egyptian calendar neatly encapsulates the culture's affinity for order

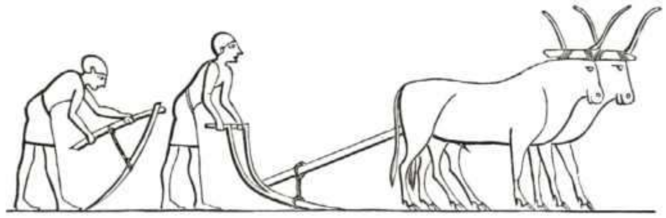
© Alamy

Time lords

c. 3000 BCE

It was Ancient Egyptian scholars who determined a year having a duration of 365 ¼ days. They divided this into 12 months. Each month comprised three weeks and each week comprised ten days. So, not quite the breakdown of units of time that we know now, but very close. They even added five extra days at the end of the calendar year. In fact, the Ancient Egyptians adhered to a solar calendar, and to a lunar calendar which predated the creation of the solar calendar. The calendar tied in not only with interests in festivals and religious observance, but also informed and made easier so much administrative work and accounting practice. During the Roman Empire's colonisation of Egypt, inevitable culture contact occurred and it was Julius Caesar who adjusted the calendar in around 46 BCE to add a leap year day. It is from the Egyptian solar calendar, amended with a few Roman adjustments, then, that our contemporary calendar takes its form, having initially been disseminated across Europe via the reach of the Roman Empire. Related to the invention of a calendar system was the Egyptians' development of a sun clock that operates similarly to a sundial.

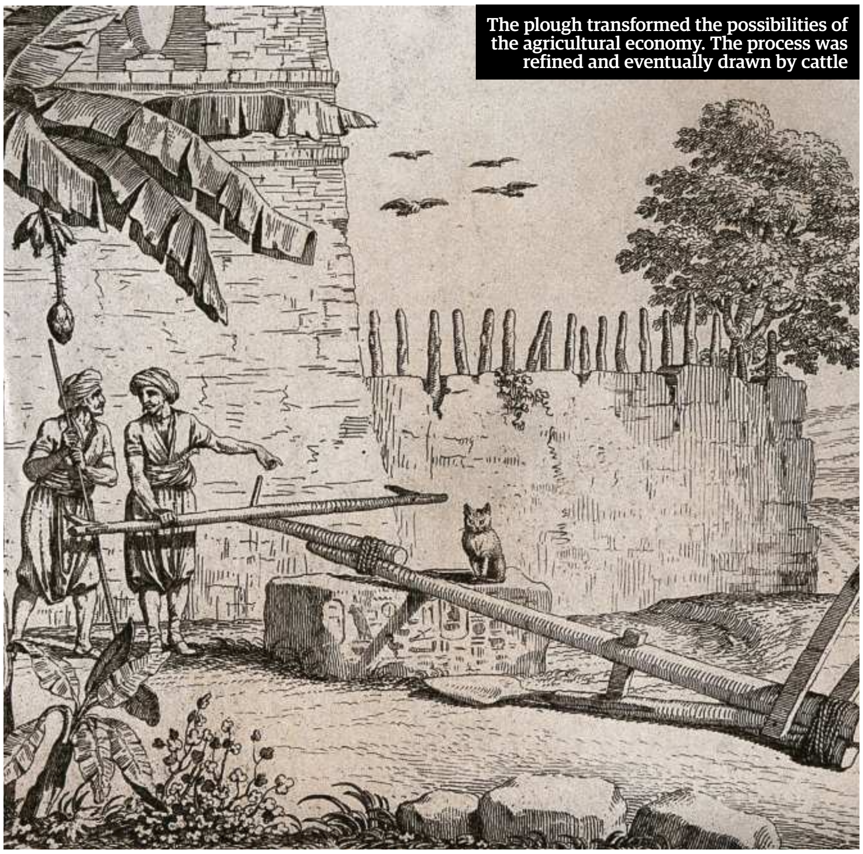
> "It is from the Egyptian solar calendar that our contemporary calendar takes its form"



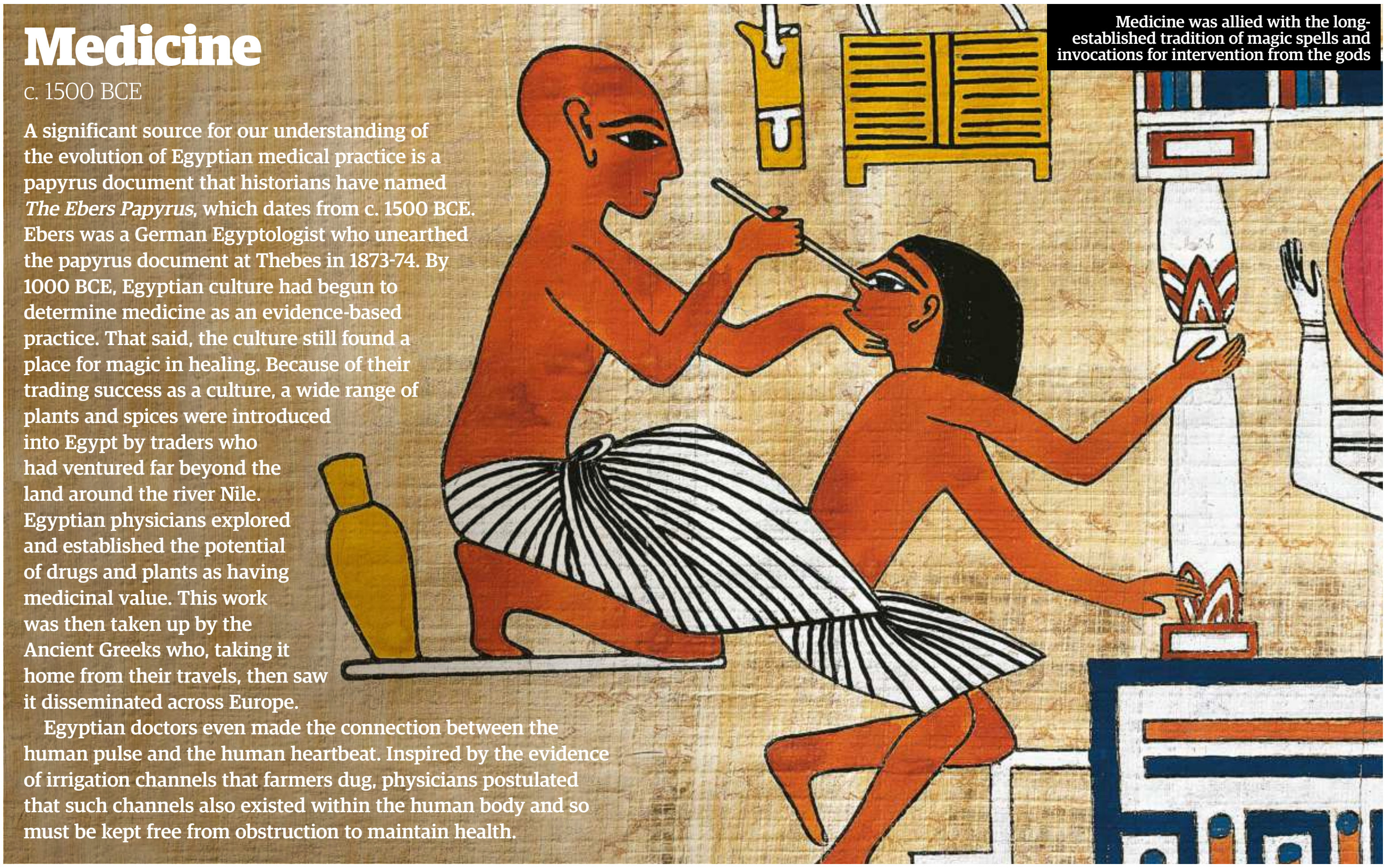
The plough

c. 4000 BCE

An agricultural powerhouse, Ancient Egypt invented a very early form of the plough. Archaeological investigations have unearthed evidence of their ploughing technology such as one example that dates from 1550-1070 BCE that is in the collection at the British Museum. Because Egypt was not a particularly forested country, the toolmakers had limited choice in terms of the quality of the timber with which they could work with and fashion from. Yet, the prototypical plough illustrated the principle well enough for it become widely used. Only modestly effective in 4000 BCE, the tool had no sophistication to it. However, by 2000 BCE, the plough was being attached to oxen. We encounter examples of Egyptian ploughs that archaeology has excavated, but it is in Ancient Egyptian artwork perhaps, on buildings and on artefacts that we get the best sense of the role of the plough across the essentially agricultural nation. Given how familiar the plough would eventually become, it seems astonishing to think that once upon a time there was a moment when it was the latest piece of farming technology available.



The plough transformed the possibilities of the agricultural economy. The process was refined and eventually drawn by cattle



Medicine was allied with the long-established tradition of magic spells and invocations for intervention from the gods

Medicine

c. 1500 BCE

A significant source for our understanding of the evolution of Egyptian medical practice is a papyrus document that historians have named *The Ebers Papyrus*, which dates from c. 1500 BCE. Ebers was a German Egyptologist who unearthed the papyrus document at Thebes in 1873-74. By 1000 BCE, Egyptian culture had begun to determine medicine as an evidence-based practice. That said, the culture still found a place for magic in healing. Because of their trading success as a culture, a wide range of plants and spices were introduced into Egypt by traders who had ventured far beyond the land around the river Nile. Egyptian physicians explored and established the potential of drugs and plants as having medicinal value. This work was then taken up by the Ancient Greeks who, taking it home from their travels, then saw it disseminated across Europe.

Egyptian doctors even made the connection between the human pulse and the human heartbeat. Inspired by the evidence of irrigation channels that farmers dug, physicians postulated that such channels also existed within the human body and so must be kept free from obstruction to maintain health.

Eye makeup

c. 4000 BCE

Think of the actress Elizabeth Taylor as Cleopatra in the Hollywood movie of the same name. It makes for a fairly iconic movie image, and the emphasis on Taylor's eyes is an apt reminder of how important eye makeup was for the Ancient Egyptians, who believed it could protect against evil by magically summoning the protective power of the gods Horus and Ra. Men and women in Ancient Egypt liked their eye makeup very much – indeed, the more of it, the better. Perhaps unsurprisingly, eye makeup was an indicator of an individual's social status: the more you wore, the higher up the social pyramid you were. Eye makeup (*kohl*) combined soot and a mineral called galena. It's a look that has remained hugely popular. We know about the importance of eye makeup thanks to the material culture of Ancient Egypt: in extant documents and on other artefacts such as public art and jewellery, too, such as a gold bracelet from the tomb of 22nd Dynasty pharaoh Shoshenq II.

Heavily applied eyeliner was partially about showing social status, but was also indicative of an interest in beauty

© Alamy

> "They concocted a recipe comprising rock salt, mint, dried iris flower and pepper"

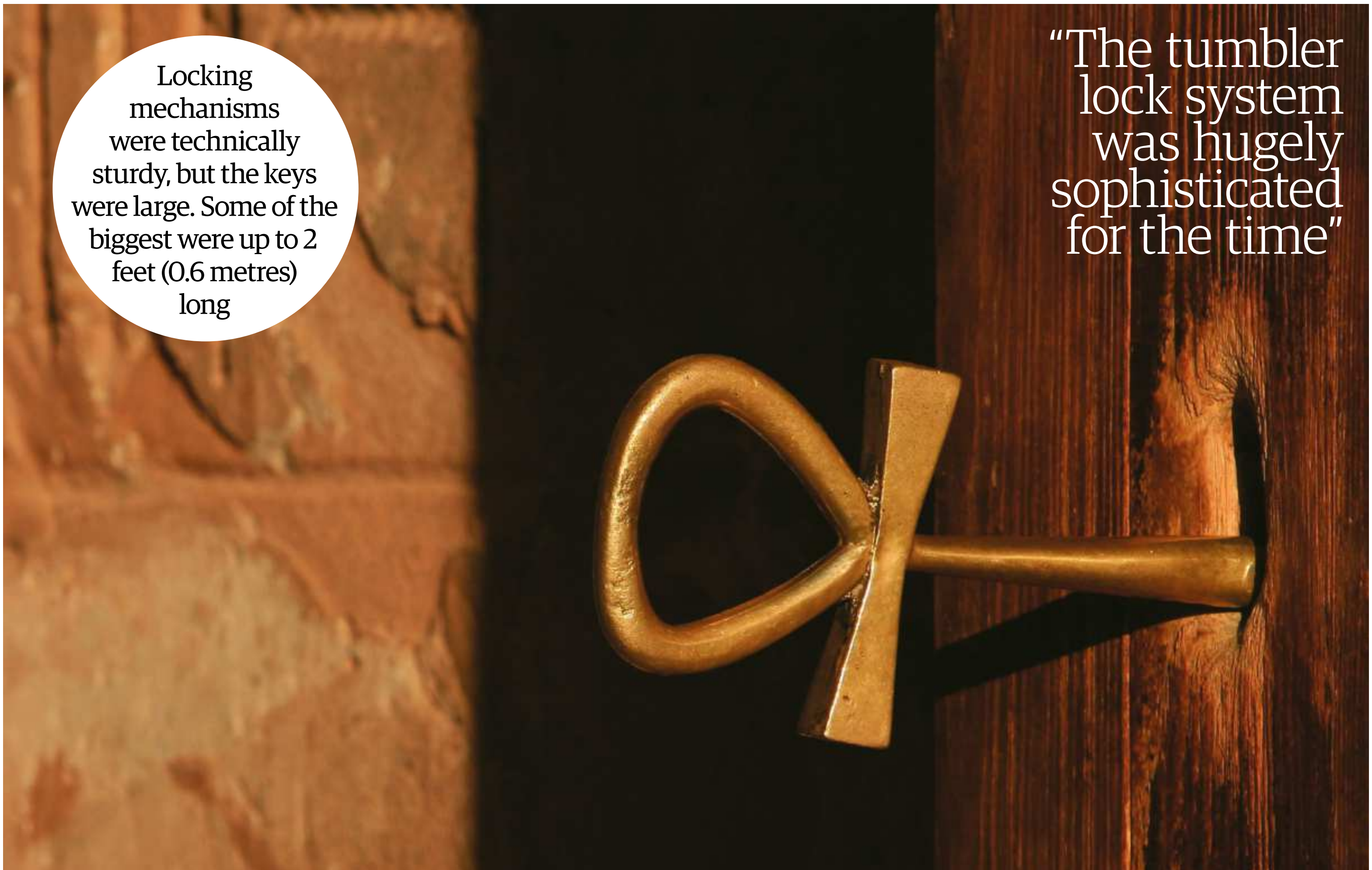
The Egyptians liked aphorisms: 'An answer is profitable in proportion to the intensity of the quest'

Personal hygiene

Because Ancient Egyptian bread contained grit, over time it could do damage to the enamel on people's teeth. Two inventions were eventually produced in an attempt to counteract this problem: for a toothbrush, wooden twigs had their ends frayed to form a brush-like surface. To make their toothpaste, the orthondontically interested Ancient Egyptians concocted a fascinating recipe consisting of rock salt, mint, dried iris flower and pepper.

It's certainly the case that an interest in personal cleanliness and good personal presentation, which we rather take for granted today, characterised the Ancient Egyptian sensibility. Hair was largely considered unhygienic, so the more hair you had on your head, the further down the social ladder you were.

Rotating shaving razors were used from around 1550-1292 BCE. Men and women shaved their heads and wore wigs instead as their own hair was considered unclean



Locking mechanisms were technically sturdy, but the keys were large. Some of the biggest were up to 2 feet (0.6 metres) long

> "The tumbler lock system was hugely sophisticated for the time"

The door lock

c. 4000 BCE

Cumbersome though Egyptian locks were due to their significant weight and size, they were among the earliest versions of the technology that we so take for granted now.

Archaeology has unearthed tumbler locks dating back to 4000 BCE. While they may not have quite invented it, Ancient Egyptians proved the usefulness of the technology. From Egypt, the door lock travelled into Europe with those Greeks who had visited Egypt and then returned home.

The tumbler lock system was hugely sophisticated for the time and it certainly instilled a new sense of security for an Egyptian's property - and indeed their very own welfare. The Egyptian lock was made with a hollowed bolt that was fixed to a door which was connected to pins. Each specific lock had a particular arrangement of pins so as to avoid duplicates being made. Hence the use of a key. Inserting the key into the lock caused the pins to lift up and so the door would open. In Ancient Egypt, lock and key were both made of wood.

Since each lock had a unique arrangement of pins, it required the correct key to open it

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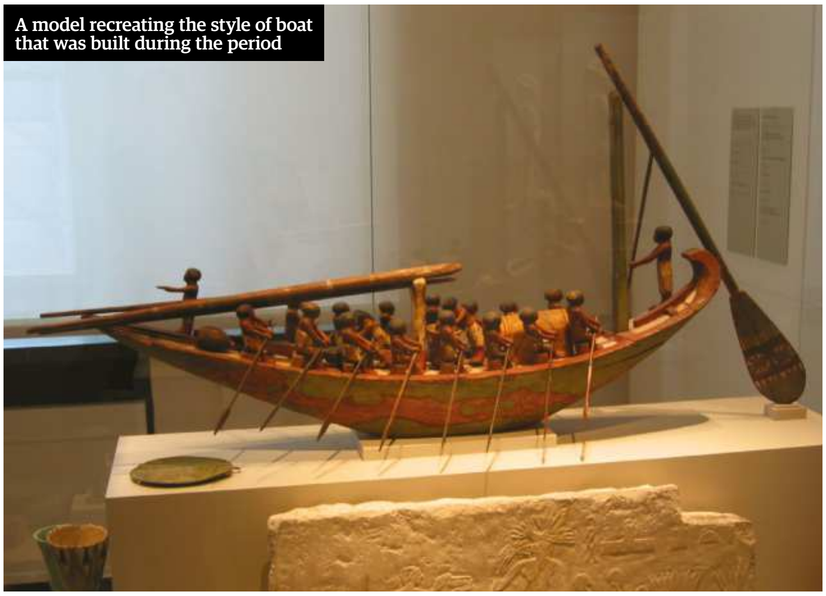
Boat building

c. 3000 BCE

As a river culture, with the sea in close proximity, the Ancient Egyptians advanced the science and art of boat building that became so important to the Mediterranean peoples. Seafaring ship ruins have been excavated at Wadi Gawasis and Ayn Sokhna, and they demonstrate the skill and precision that the Egyptians brought to naval industry. As far back as 3000 BCE, at Abydos, planked wooden boats were being made. Significantly, the Ancient Egyptians used thick planks in their boat construction. The planks were held in place by mortise-and-tenon fastenings. Of their refined approach to boat-craft, archaeologist Cheryl Ward explains, "Egyptian-built craft are recognisably different from those of other cultures and demonstrate consistency in philosophy and detail over a 2,500-year span." Much of our understanding of the role of boats and seafaring in Ancient Egypt comes to us via hieroglyphs on tablets. As in other situations, it seems not unreasonable to suggest that visitors from further afield, particularly from the Mediterranean, would have witnessed the skill with seafaring and river navigation and carried the information back home with them.



A model recreating the style of boat that was built during the period

Fractions

c. 1800 BCE

We might well take mathematics for granted, including fractions, despite the head-scratching that can ensue whenever we encounter them. To the Ancient Egyptians, however, we can say 'thank you' for the elegant art of the fraction.

Our knowledge of the development and use of fractions in the Ancient Egyptian world of mathematics is derived from a papyrus scroll that was found in a tomb in Thebes. Having subsequently been bought by a Scot named Henry Rhind in a market in Luxor in 1858, the scroll then found its way to the British Museum in London in 1864 upon Rhind's death.

Deciphered in 1842, the *Rhind Mathematical Papyrus* revealed a highly consistent system of fractions that allowed the agricultural society of Ancient Egypt to plan the farming cycle. Sure enough, the system of fractions also found a role in planning for building projects, accountancy and paying wages. Egyptian fractions operate somewhat differently to the system of fractions that we may know from school.

"A highly consistent system of fractions allowed Ancient Egyptians to plan the farming cycle"

Astronomy

c. 4000 BCE

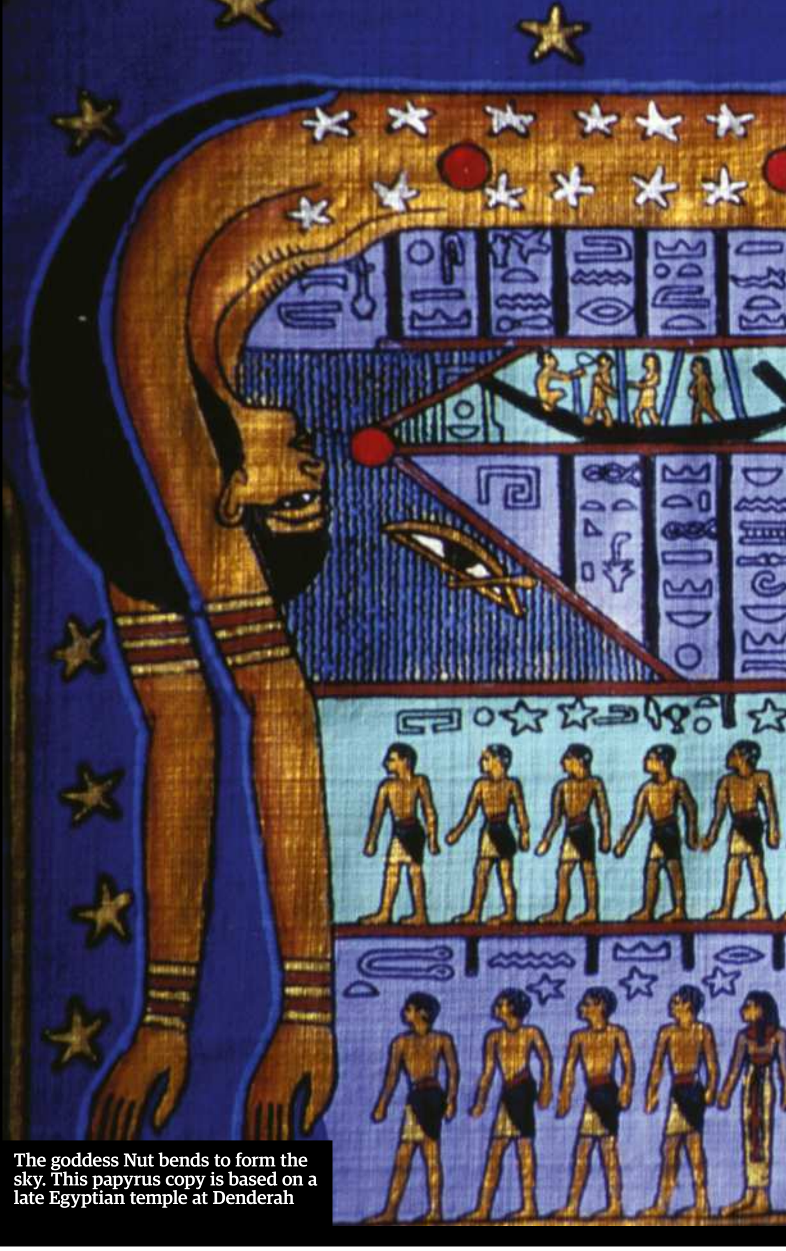
Back in 2000, British Egyptologist Dr Kate Spence proposed a theory for the way in which the architects of the time managed to align the pyramids with such accuracy. Dr Spence details that degree of precision: "The Great Pyramid is extremely accurately aligned towards north. The sides deviate from true north by less than three arc minutes - that's less than a 20th of a degree - which is extremely accurate in terms of orientation."

What Dr Spence's theory underscored was the faculty of the Ancient Egyptians to embrace and exploit the discipline of astronomy as a means of navigation and orientation. The Greek historian Herodotus commented in his work *The Histories* that "the Egyptians were the first of all men on Earth to find out the course of the year, having divided the seasons into 12 parts to make up the whole; and this they said they found out from the stars..."

From the Egyptians, modern astronomy was able to develop a more refined sense of the repeating, cyclical patterns of the stars and planets in the night sky. They named stars, and their work with astronomy also informed the creation of an astrological system. Archaeology again has unearthed much material culture that records the commonly held fascination with the night sky.

In their fascination with the Sun, the society's commitment to architecture combined to create the temples at Abu Simbel and Qsar Qarum, in which the sunlight aligns with details of sculpture at certain times.

"Archaeology has unearthed much material culture that records the Ancient Egyptian fascination with the sky"



The goddess Nut bends to form the sky. This papyrus copy is based on a late Egyptian temple at Denderah

© Alamy

Gold mining

c. 3100 BCE

Gold mining has long been a globally significant industry and, as in many other things, we have the Ancient Egyptians to thank for the example of this work. One of our main sources for insights into Egyptian mining practice is found in the writings of Diodorus Siculus, the Greek historian. The Egyptian terrain was rich in a range of minerals and resources, and gold was one such naturally occurring treasure. As far back as the fourth millennium BCE, the Egyptian people were beginning to access gold via alluvial deposits. Then, as of around 3100 BCE, engineers developed efficient and productive mining operations that were located in the mountain range east of Coptos and also in the south in Nubia. Consistent with so much else in their sense of the immediate and the eternal, the Ancient Egyptians connected the real practicalities of the world with their religious system: they considered gold to be the flesh of Ra, the Sun god. Because Ra was an undying deity, gold too became a talisman of sorts, embodying eternal life.

"Ancient Egyptians considered gold to be the flesh of Ra, the Sun god"

Tattoo art was very popular in Ancient Egypt. Analysis of some mummified corpses has revealed tattoos

This is a map of the gold mining area and basanite caves at Wadi Hammamat

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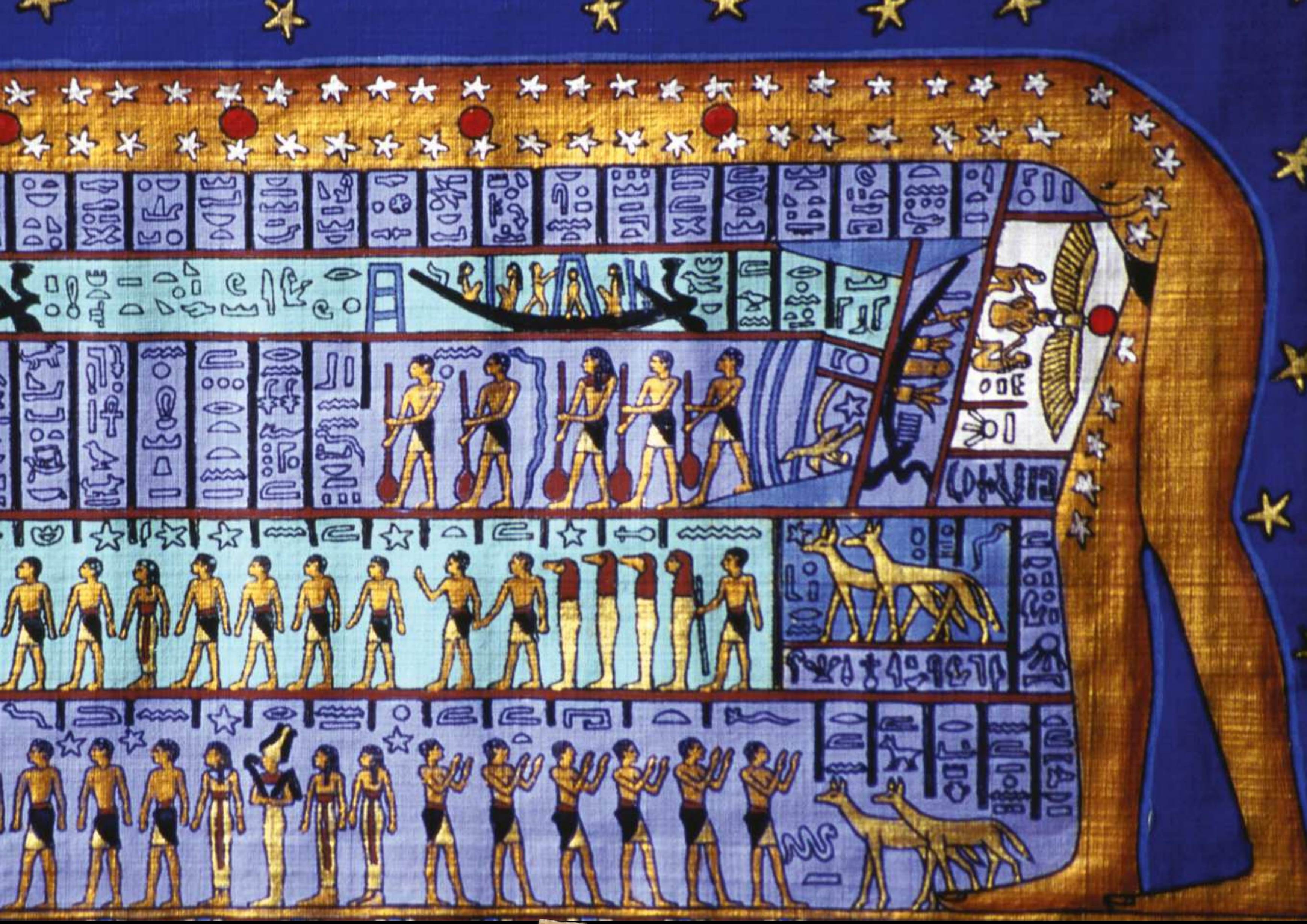
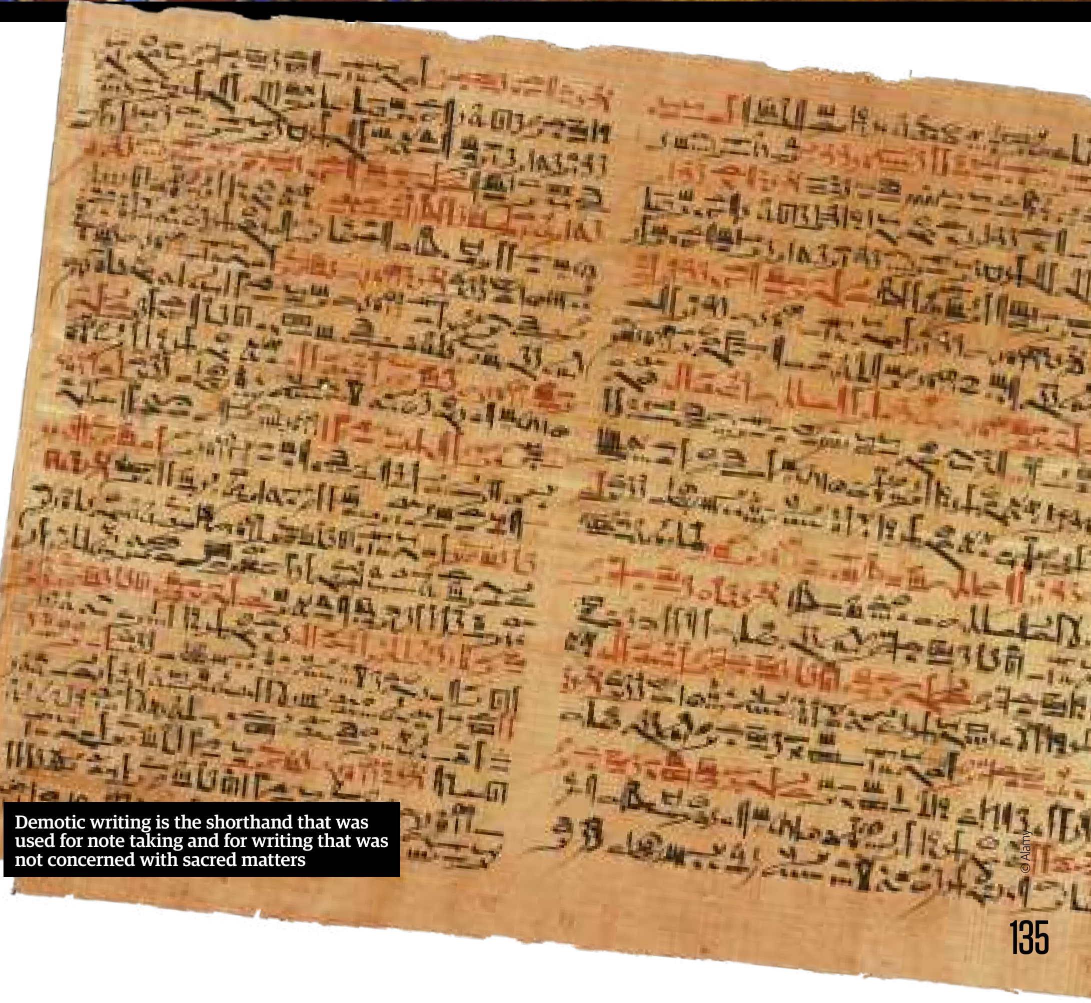


Writing

c. 3200 BCE

For the people of Ancient Egypt, their belief was that Thoth, the god of wisdom, had bestowed on them the ability to write. 'Hieroglyph' is a word that comes to us from Ancient Greece and it means 'sacred carvings'. Hieroglyphs used over 700 signs. There was also a complementary form of shorthand script typically used for writing on papyrus. For this ancient culture, writing was certainly a way to record the history of the royal rulers. Other subjects committed to written memory were spells. Egypt was a culture that, to some degree, combined an affinity for magic with an affinity for the world of reason, evidence and investigation. Alongside their spells and incantations, history and decrees, Egyptian writing also contributed to the recording of poetry such as *The Tale of Sinhue*. The Rosetta Stone has become a globally recognised archaeological treasure that permitted scholars to begin investigating the material culture of Ancient Egypt that archaeology would uncover. After several thousand years, we 'suddenly' find ourselves able to understand what their notations discussed and described. The Ancient Egyptians also deployed their writing system as a means of developing a consistent bureaucracy; it's an example we've all learnt from.



Demotic writing is the shorthand that was used for note taking and for writing that was not concerned with sacred matters

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Egyptology through time

From ancient Greek explorers to Napoleonic conquerors, Egyptology has a far lengthier and illustrious history than you may have first believed

Few other civilisations have ignited as much intrigue and hype as Ancient Egypt. A new discovery or even just a new theory about the lost kingdom draws just as much attention from the general public as it does academics. Children, meanwhile, seem to have an almost innate fascination with it. Whether it is the eeriness of its mummies or the engineering prowess of the pyramids, there is something about this ancient kingdom that has truly captured the imagination of people from all walks of life.

Egyptomania, as this fascination has become known, reached fever pitch in 1922 when Howard Carter, arguably the most famous Egyptologist of all time, discovered the intact tomb of Tutankhamun. However, the interest in the history of Egypt spans back as far as antiquity itself. The Ancient Egyptians did not study the past in order to understand the present, as we do today, but they listed kings and recorded events that occurred during their reign in order to establish their legitimacy, or *ma'at* - the proper order of things. For them, the past was fixed, although they also believed that it could and should be corrected so that unpopular events or people could be erased from memory. Ironically, the kings and queens whose existence they tried to deny are now some of the best known of the ancient land.

Modern day tourism in Egypt speaks for itself: an average of 4,000 people visit the Valley of the Kings every day

The restoration and conservation of monuments first occurred during pharaonic times. Thutmose IV restored the sphinx and had the dream that inspired this restoration carved on the famous Dream Stele. Less than two centuries later, Khaemwaset, the fourth son of Ramesses II, cleared and restored several structures around Giza and Sakkara, leading him to be considered 'the first Egyptologist'. Archaeology also existed, at least in some form. During the Middle Kingdom, the rise of the cult of Osiris led to a mass search for his tomb, which the Ancient Egyptians believed they found. Of course, rather than being that of a god, it in fact belonged to the First Dynasty king Djet. The tomb was renovated and further refurbishments were conducted during the New Kingdom era.

Greece was the first place outside of Egypt to show an interest in the latter's antiquity. The Greek historian Herodotus visited Egypt around 450

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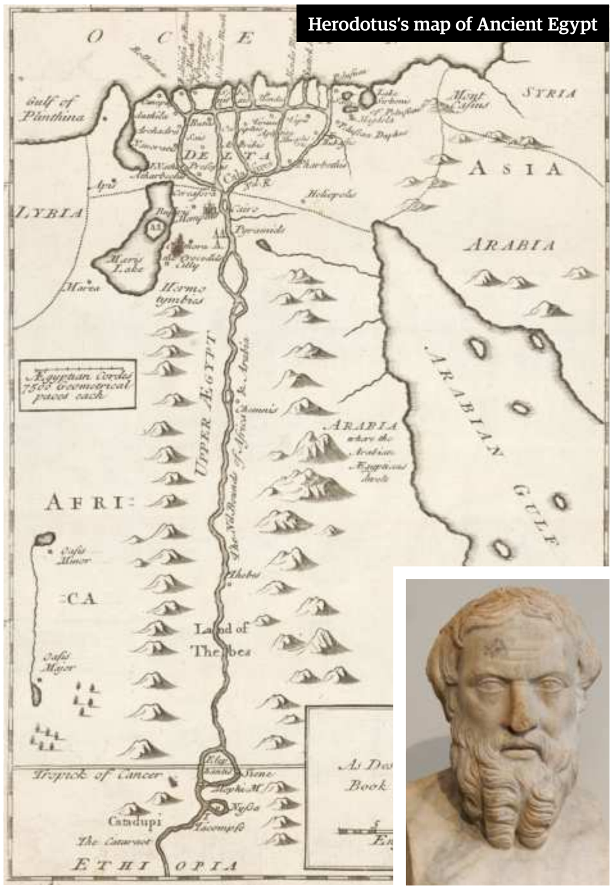


Herodotus's map of Ancient Egypt

Ramasses II's 'Temple of a Million Years' at Thebes

HENRY SALT

1780-1827

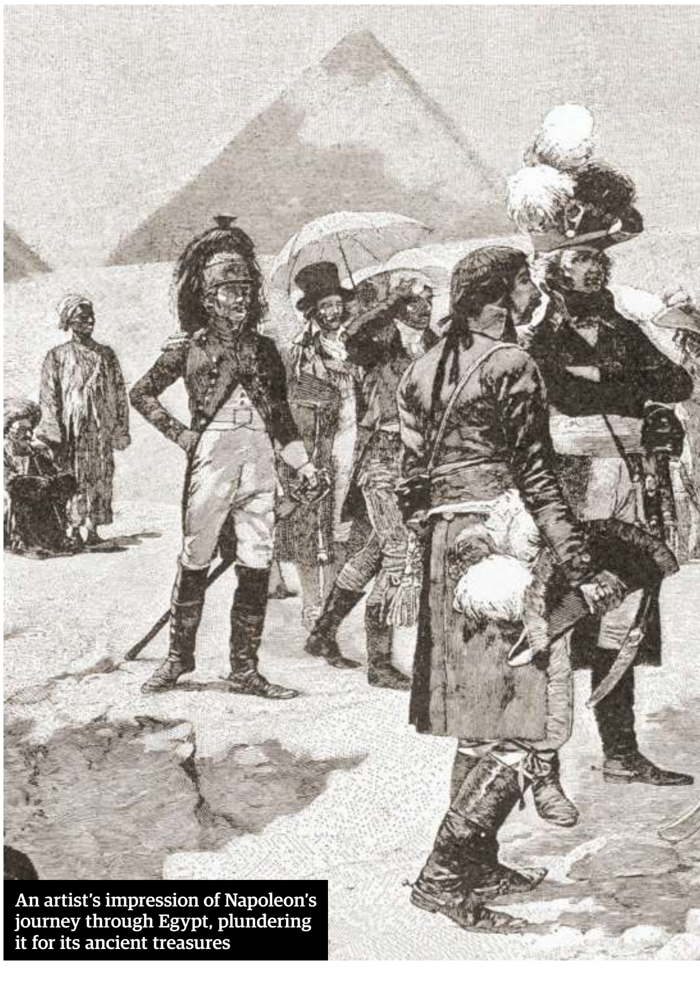
In 1815 Salt was appointed British consul-general in Cairo. During his time in Egypt, he accumulated thousands of artefacts, many of which were donated or sold to the British Museum or bought by Charles X of France.

BCE and wrote a detailed account of life there, although many of his observations have since been dismissed as inaccurate, with some claiming that Egyptology would have been better off without him. During Ptolemaic times, another Greek historian, Hecataeus, composed his *Ægyptiaka*, a history of Egypt that credited Ancient Egypt as being the source of the civilised arts and crafts. The Ptolemies themselves were also interested in the work of the Ancient Egyptians, and many of the Egyptian monuments, including the pyramids, were restored by them. The most comprehensive work from the Greco-Roman period, though, was by a native Egyptian, Manetho. Most of his work has been lost, but it is from him that the dynastic system, the organising framework of pharaonic history, is derived.

In 30 BCE Octavian, who later became emperor Augustus, defeated Marcus Antonius and Cleopatra VII, the last ruler of the Ptolemaic Dynasty, and Egypt became part of the Roman Empire. Egyptomania struck for the first time, as Egyptian art and artefacts were exported to Rome. Even the two religions began to merge. Several notable Roman sages, including Hermes Trismegistus and Pliny the Elder, wrote extensively about Ancient Egypt, inspiring many more Romans to visit this mysterious kingdom. However, the introduction of Christianity in 68 CE marked the beginning of a move away from Egypt's heritage. Temples were transformed into monasteries, hieroglyphs were condemned as 'nonsense', and pagans were lynched. By the end of the 5th century, the transformation to a Christian society was complete, and interest in the Ancient Egyptians was lost.

Most of the tombs in the Valley of the Kings were robbed within 100 years of being sealed, leaving little opulence to discover

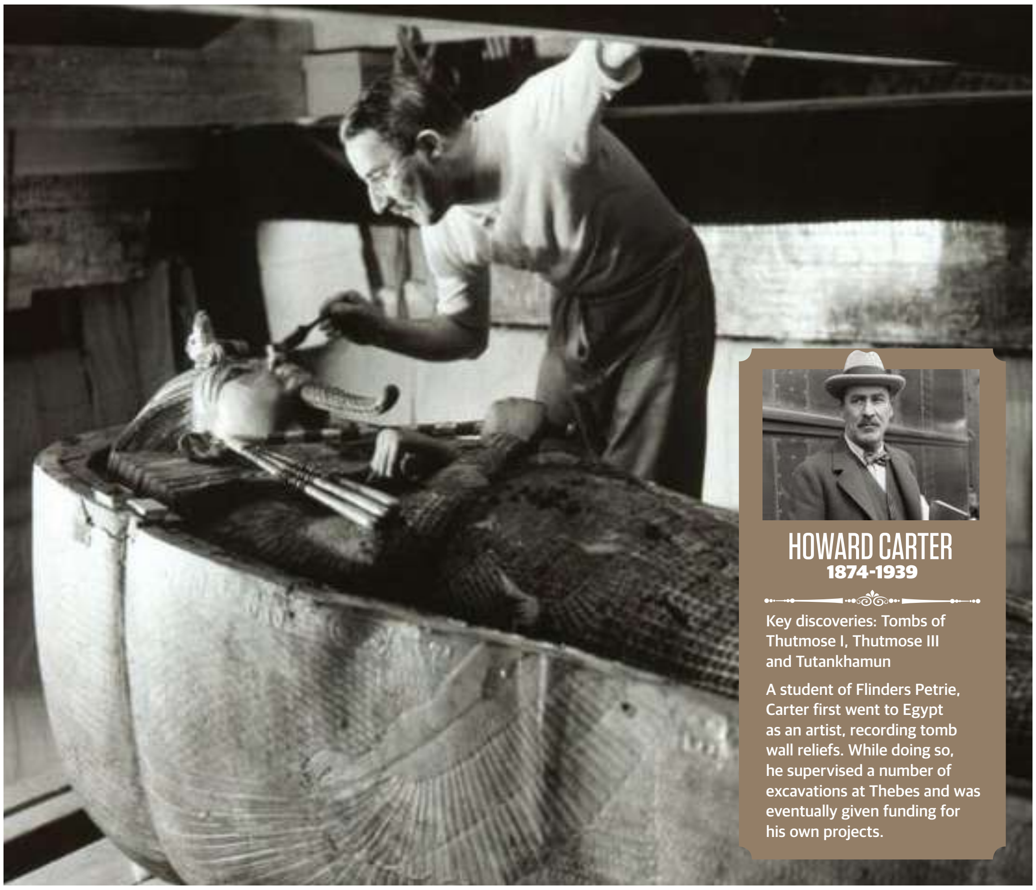
The Arab conquest of Egypt in 642 CE opened Egypt up to Muslim scholars and travellers, some who came from overseas and some from Egypt itself. The Egyptian historian Abu Jafar al-Idrisi carried out a study of the pyramids in the 13th century, providing descriptions of location, size, measurements and even an analysis of the mineral content of the stones. But one of the most powerful incentives for investigation into Ancient Egypt was treasure hunting. Even in pharaonic times, tombs were being raided for their contents, and this practice continued down the ages. Treasure-hunting manuals became a literary genre, with a significant chunk of these books dedicated to evading the magic that guarded the treasures.



An artist's impression of Napoleon's journey through Egypt, plundering it for its ancient treasures

It was also around this time that European exploration and study of Ancient Egypt began. Then came the Renaissance, which sparked a new interest in classical antiquity, Egypt included. Its teachings were considered a source of great knowledge, and the first attempts were made to decipher hieroglyphics. Bizarrely, mummies also began to be mined extensively for the alleged medicinal properties of the ground corpses. In the early 17th century, John Greaves measured the pyramids and published the illustrated *Pyramidographia* in 1646, while the scientist-priest Athanasius Kircher was the first to establish a link between Egyptian hieroglyphs and the modern Coptic languages, for which he is considered a founder of Egyptology.

During the Enlightenment, scholarly attention became more systematic. However, the wars of the French Revolution made a voyage across the Mediterranean much harder and travel to Egypt declined. In 1797, Danish archaeologist Georg Zoëga wrote: "If Egypt becomes more accessible, and the numerous ancient monuments that are to be seen there are carefully studied and documented, perhaps future generations will someday read the hieroglyphs and understand what those mysterious monuments mean." That day was to come much sooner than he ever could have expected.



HOWARD CARTER

1874-1939

Key discoveries: Tombs of Thutmose I, Thutmose III and Tutankhamun

A student of Flinders Petrie, Carter first went to Egypt as an artist, recording tomb wall reliefs. While doing so, he supervised a number of excavations at Thebes and was eventually given funding for his own projects.

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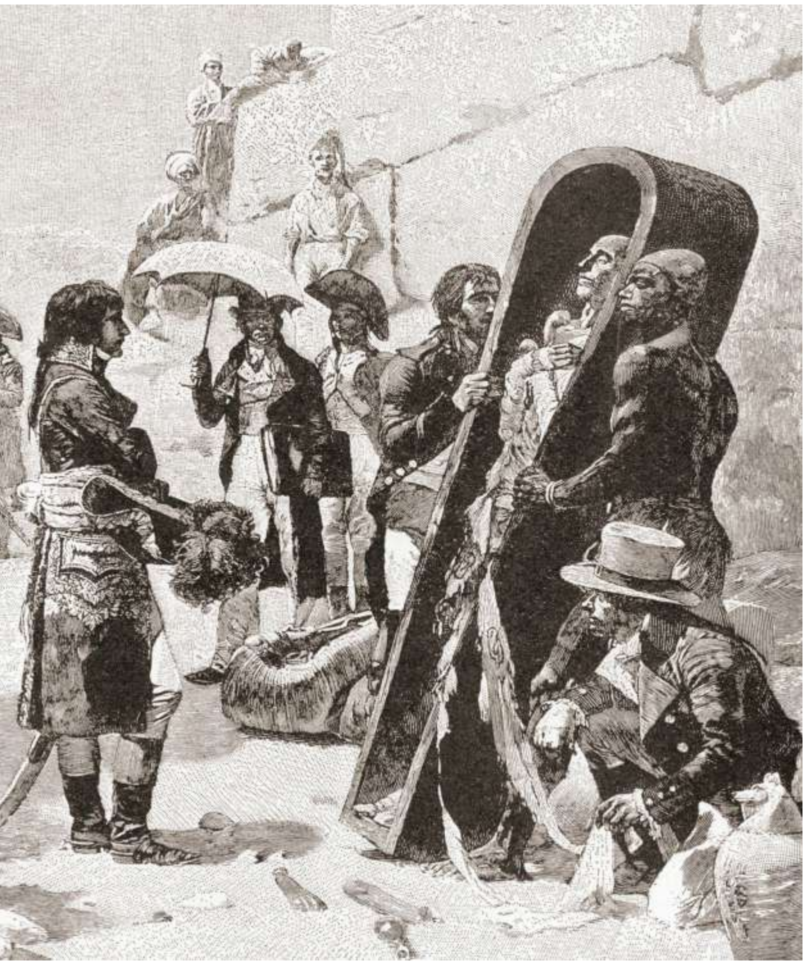
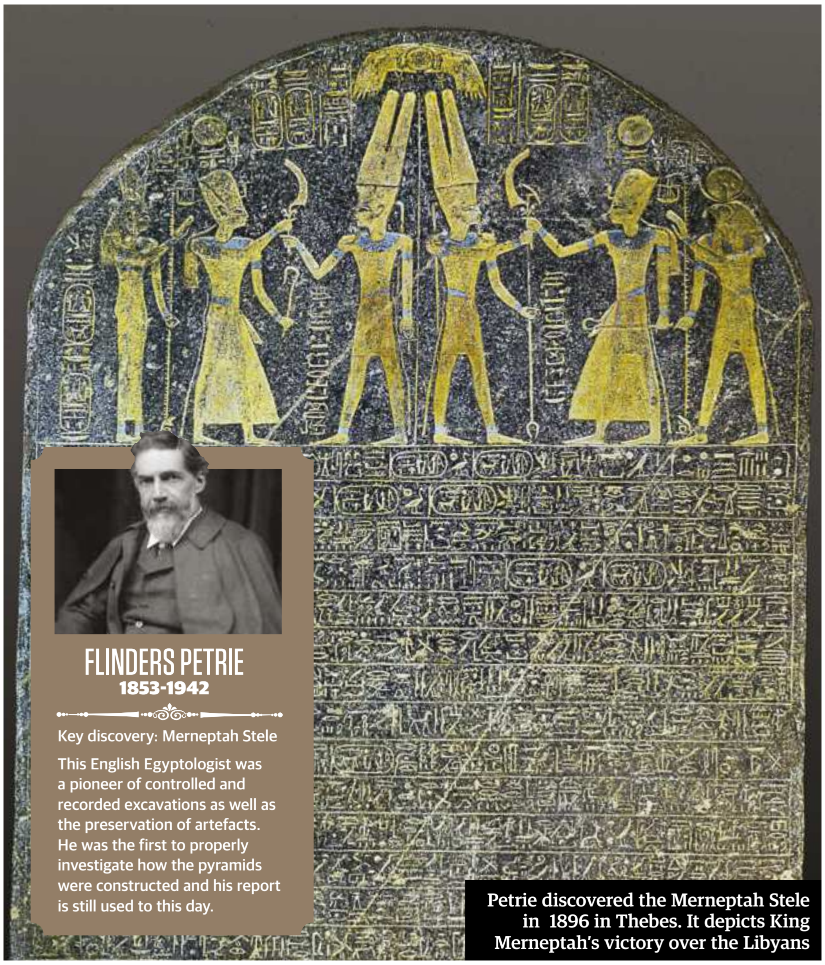




FLINDERS PETRIE

1853-1942

Key discovery: Merneptah Stele

This English Egyptologist was a pioneer of controlled and recorded excavations as well as the preservation of artefacts. He was the first to properly investigate how the pyramids were constructed and his report is still used to this day.

Petrie discovered the Merneptah Stele in 1896 in Thebes. It depicts King Merneptah's victory over the Libyans

© Alamy

Modern Egyptology

With the discovery and decipherment of The Rosetta Stone came a new sense of intrigue and interest in Ancient Egypt soared

The birth of modern Egyptology in the early 19th century was motivated not by scholarship, but by politics. In 1798, the French Republic was at war with Britain. Unable to target it directly, the French chose to instead seize Egypt, thus breaking Britain's overland communications with the jewel in its crown, India, while at the same time gaining France a valuable colony. An army of 17,000 led by Napoleon Bonaparte landed near Alexandria on 1 July and quickly captured the town. With them were 150 civilians who made up the Commission of Sciences and Arts, chosen for their abilities to assess Egypt and develop it into a prosperous province.

Instead, it was Egyptian antiquity that interested them the most. In 1799, the French Expedition made a discovery that would change Egyptology forever. A group of soldiers working on fortifications near the town of Rashid, or Rosetta, uncovered a large, irregularly shaped stone. One of its faces was inscribed with different scripts: hieroglyphics on the top, Greek on the bottom, and a third, which became known as Demotic, in the middle. The Greek portion was translated, revealing that each script held the same message. The Rosetta Stone, as it became known, could therefore be used to translate hieroglyphics. However, the Greek and Egyptian texts are not the same word for word, and much of the hieroglyphic portion is damaged or incomplete. Therefore, the Rosetta Stone played only a small role in the decipherment of hieroglyphs, but it welcomed an Egyptology boom.

The Great Pyramid of Giza is the only one of the Seven Wonders of the ancient World still standing

"The Rosetta Stone played only a small role"

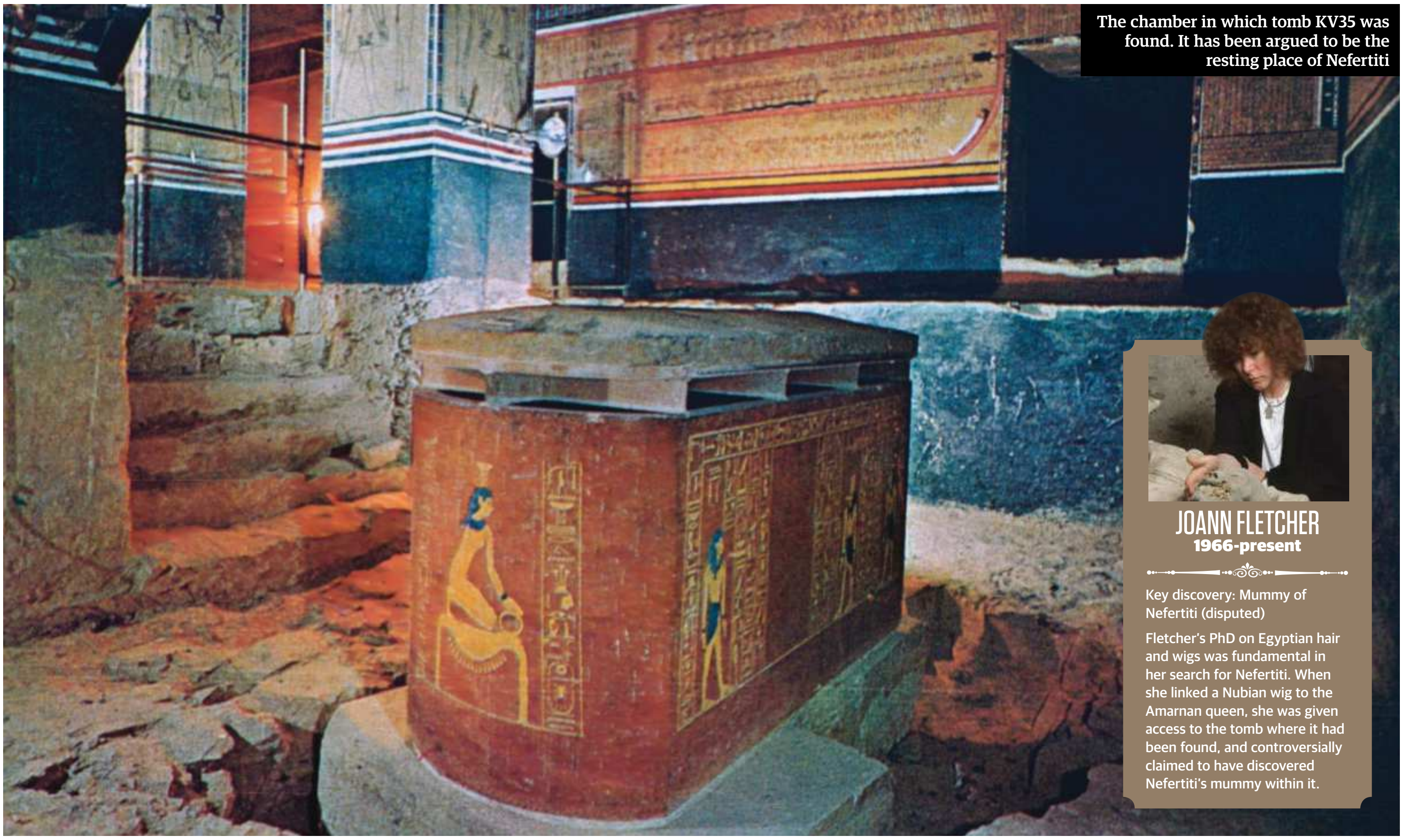
ZAHI HAWASS

1947-present

Key discoveries: Mummy of Hatshepsut, mummy of Queen Tiye, Valley of the Golden Mummies

Formerly the Egyptian Minister of State for Antiquities Affairs, Hawass is now Egypt's leading archaeologist. Despite this, he has been the subject of much scandal and criticism, and was sentenced to prison for allegedly smuggling antiquities.

Hawass uncovering the secrets of the Valley of the Golden Mummies



The chamber in which tomb KV35 was found. It has been argued to be the resting place of Nefertiti

JOANN FLETCHER

1966-present

Key discovery: Mummy of Nefertiti (disputed)

Fletcher's PhD on Egyptian hair and wigs was fundamental in her search for Nefertiti. When she linked a Nubian wig to the Amarnan queen, she was given access to the tomb where it had been found, and controversially claimed to have discovered Nefertiti's mummy within it.

After French scholar Jean-Francois Champollion succeeded in deciphering the Rosetta text, and further advancements were made in understanding its language and writing system, the study of ancient Egyptian civilisation became much easier. Egyptology became more professional via the work of Egyptologists like Flinders Petrie, who introduced techniques of field preservation, recording, and excavating. In 1880, Flinders Petrie revolutionised the field of archaeology through controlled and scientifically recorded excavations and determined that Egyptian culture dated back as early as 4500 BCE. The British Egypt Exploration Fund was founded in 1882 and other Egyptologists promoted Flinders Petrie's methods.

Flinders Petrie was also responsible for training a new generation of Egyptologists, who would come to study and excavate Egypt in its 'golden age of discovery'. One of these was Howard Carter. His 1922 discovery of Tutankhamun's tomb spawned the beginning of a reaction dubbed 'Egyptomania', which would go on to last until World War II, influencing art and design and inspiring novelists and film directors alike to write stories based on the ancient kingdom.

While the craze died down after the war, the 1978 Tutankhamun tour sparked new interest that remains to this day, as the vast swathes of documentaries and books about Egypt prove. It seems that ancient Egypt will remain fascinating for many millennia to come.

A recreation of the Dream Stele of Thutmose IV

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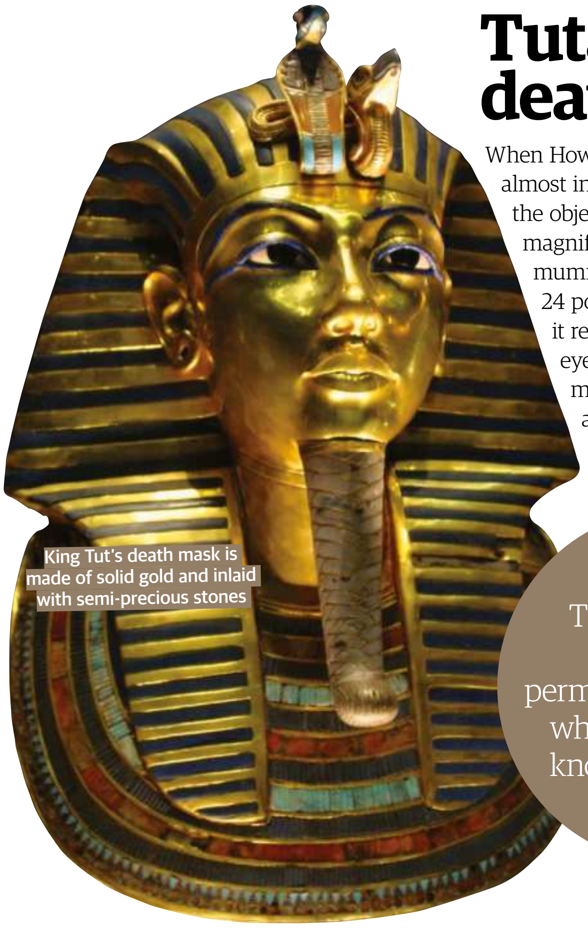
Treasures of Ancient Egypt

These ancient artefacts are now some of the most valuable in the world, and have helped us piece together the puzzle of Egypt

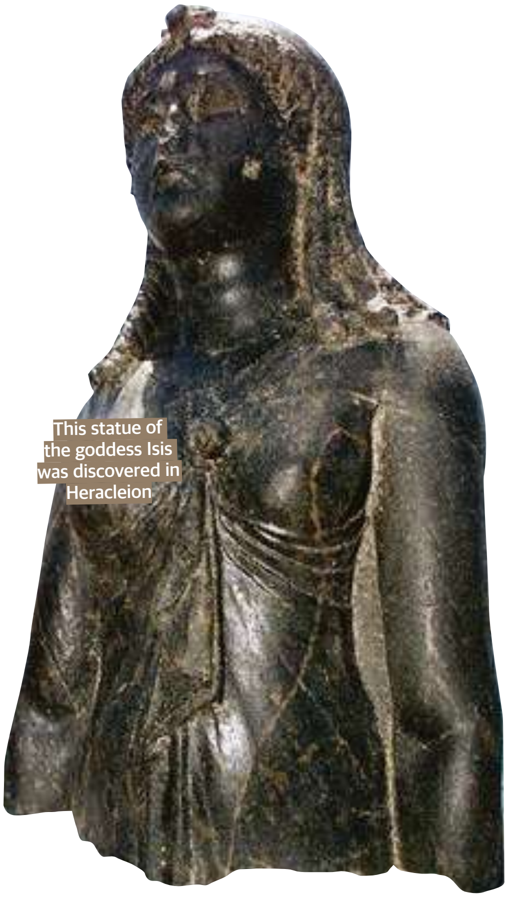


King Tut's death mask is made of solid gold and inlaid with semi-precious stones

Tutankhamun's death mask 1922

When Howard Carter and Lord Carnarvon discovered the almost intact tomb of the Egyptian boy king Tutankhamun, the object that received the most attention was the magnificent death mask they found placed over the mummy's head. This is solid gold and weighs about 24 pounds. Although it is difficult to judge how much it resembles the young pharaoh himself, the narrow eyes, nose, lips and chin all match the features of his mummy. Because of the discovery of this stunning artefact, Tutankhamun has become the most recognisable pharaoh in Egyptian history, and the mask itself has become a symbol for Ancient Egypt and Egyptology around the world.

In 2015, Tutankhamun's mask was permanently damaged when its beard was knocked off during cleaning



This statue of the goddess Isis was discovered in Heracleion

© Corbis

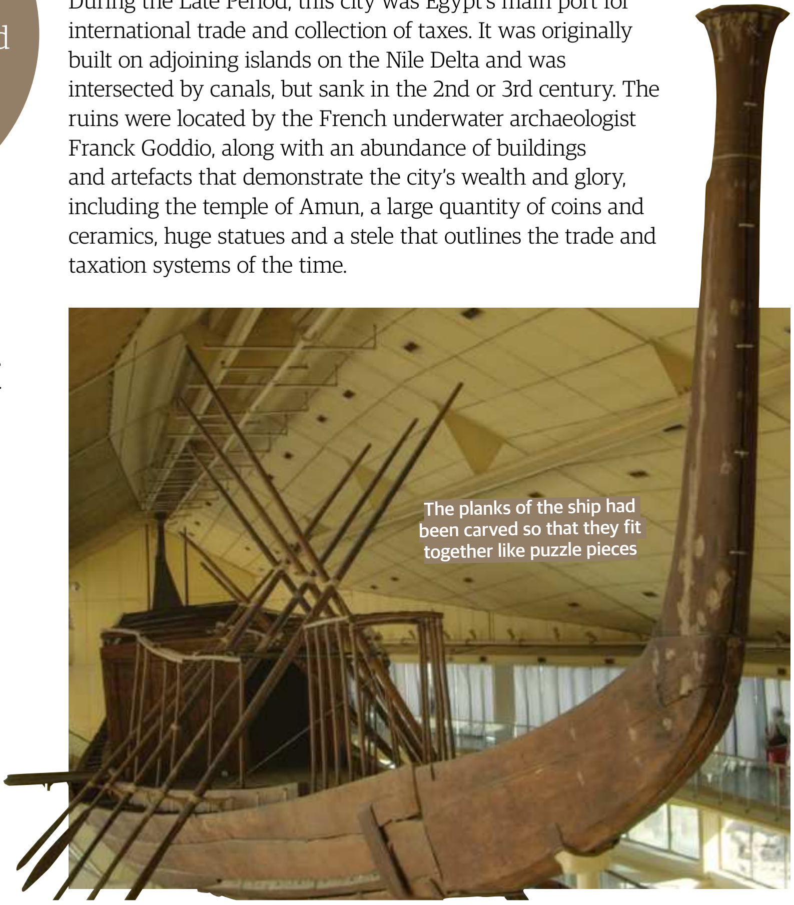
Heracleion 2000

During the Late Period, this city was Egypt's main port for international trade and collection of taxes. It was originally built on adjoining islands on the Nile Delta and was intersected by canals, but sank in the 2nd or 3rd century. The ruins were located by the French underwater archaeologist Franck Goddio, along with an abundance of buildings and artefacts that demonstrate the city's wealth and glory, including the temple of Amun, a large quantity of coins and ceramics, huge statues and a stele that outlines the trade and taxation systems of the time.

> "Because of his death mask, Tutankhamun has become the most recognisable pharaoh in Egyptian history, and the mask itself has become a symbol for Egyptology"

Khufu ship 1954

This full-size Egyptian barge was discovered in a pit at the foot of the Great Pyramid of Giza. It was built around 2500 BCE, most likely for the pharaoh Khufu of the Old Kingdom, to transport his body to the afterlife. The Khufu ship is one of the oldest, largest and best-preserved vessels from antiquity, measuring more than 40 metres long. It was identified as the world's oldest intact ship and has been described as 'a masterpiece of woodcraft' that could sail today if put into water. The ship was one of two rediscovered in 1954 by Kamal el-Mallakh.



The planks of the ship had been carved so that they fit together like puzzle pieces

Valley of the Golden Mummies 1996

This huge burial site at Bahariya Oasis, dating to the Greco-Roman period, was discovered by Zahi Hawass and his Egyptian team. Approximately 250 2,000-year-old mummies were recovered over several months. There were four different styles of mummy found, including gold-gilded ones. These have a gilded mask covering the face and a gilded waistcoat depicting different scenes of gods and goddesses, hence why the name 'golden mummies' was given.

One of the mummies found in the Valley of the Golden Mummies

The bust of Nefertiti is part of the Egyptian Museum of Berlin collection, currently on display in the Neues Museum

Nefertiti's bust 1912

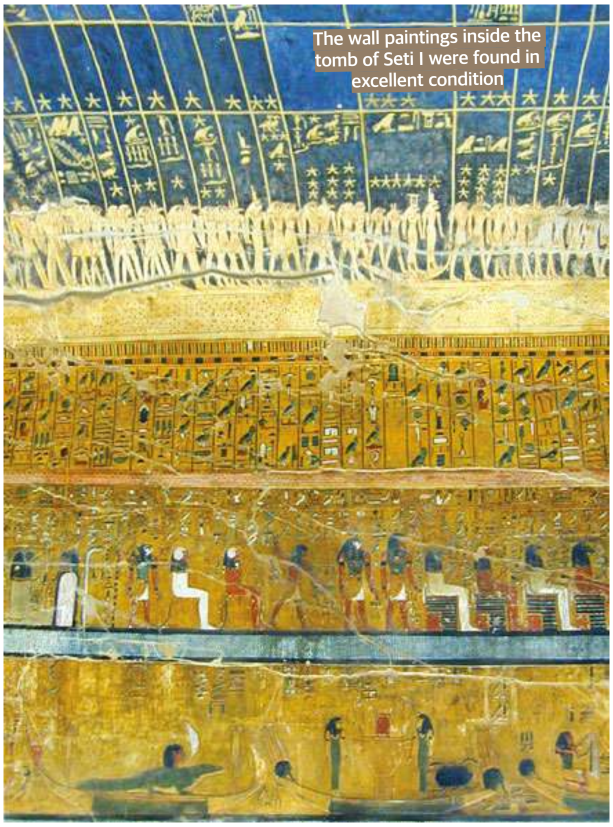
The limestone bust of Nefertiti, the Great Royal Wife of the 18th Dynasty pharaoh Akhenaten, is one of the most iconic and most copied works of Ancient Egypt. It was discovered by a team led by German archaeologist Ludwig Borchardt, who was overseeing the excavation of an Amarnan sculptor's workshop. Since then, the artefact has been housed in Germany. However it has not been resting peacefully there; it has been the subject of much controversy, with allegations over its authenticity. There have also been demands made for it to be returned to its home in Egypt.

> There is an ongoing campaign to return 5,000 Egyptian artefacts to their homeland, including Nefertiti's bust

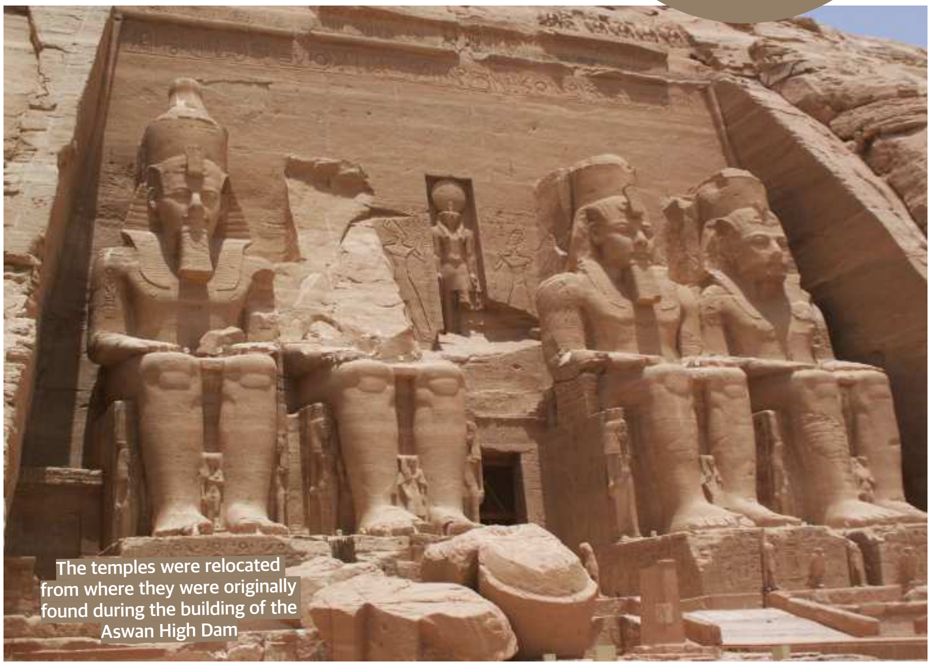
> "Its wall paintings were in excellent condition"

Tomb of Seti I 1817

Tomb KV17 is the tomb of pharaoh Seti I, and was first discovered in the Valley of the Kings by an Italian explorer named Giovanni Battista Belzoni in 1817. Its wall paintings were in excellent condition and some of the artists' paints and brushes had been left on the floor, making it one of the best preserved tombs in Egypt. However, it was damaged when Jean-François Champollion, the translator of the Rosetta Stone, removed a large wall panel from the tomb during his expedition in 1828-29.



The wall paintings inside the tomb of Seti I were found in excellent condition



The temples were relocated from where they were originally found during the building of the Aswan High Dam

Abu Simbel temples 1813

These two huge temples were originally carved out of the mountainside during the reign of Pharaoh Ramesses II, as a monument to himself and his queen Nefertari. Over time, the temples fell into disuse and eventually became covered by sand. They were forgotten until 1813, when Swiss orientalist Jean-Louis Burckhardt found the top frieze of the main temple. Burckhardt told Giovanni Belzoni of his finding, and in 1817 he succeeded in excavating the site.

Inside the Giza pyramid complex

Uncover the enigma of the awe-inspiring structures at Giza, including the mighty Sphinx – the world's largest single-stone statue

The Great Sphinx is the huge monolithic statue of a human-headed lion that was carved into a single mass of limestone bedrock on the western bank of the Nile during the third millennium BCE. The Sphinx faces directly east and its stonework features once included a cobra-embellished headdress and a beard.

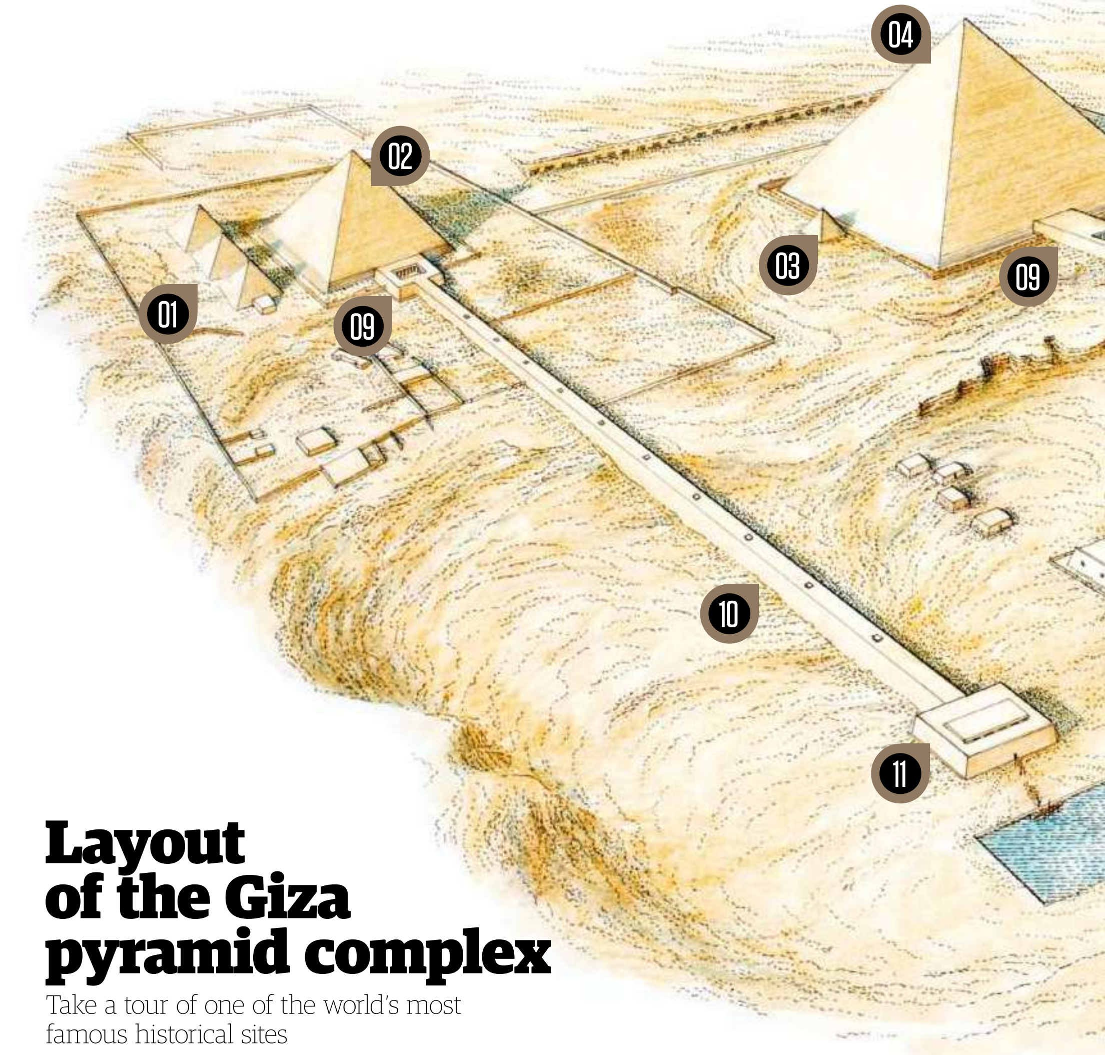
Although neither the Sphinx nor its principal architect were cited within the content of any hieroglyphs from the time, the 'foreman' of the project is widely regarded to be Pharaoh Khafre (c. 2558-2532 BCE), the ruler of the Old Kingdom, which was a period of early Egyptian civilisation that endured for 2,500 years. Incidentally, Khafre's father – Khufu (c. 2589-2566 BCE) – built the Great Pyramid at Giza approximately 400 metres (1,300 feet) from where the Sphinx statue would later be carved.

Regarding the identity of the labour force, an Old Kingdom cemetery containing the tombs of some 600 possible workers and overseers was unearthed in the early Nineties. Following that, in 1999 Egyptian archaeologist Mark Lehner found a settlement dating back to the reign of Khafre, capable of accommodating between 1,600 and 2,000 people – a rather convenient Sphinx construction workforce, perhaps?

4,500 years ago, before bronze and iron were prevalent, the available tools for this colossal undertaking would have included copper implements and stone hammers. Modern reconstructions, using similar stone and ancient-style tools, have estimated that the Sphinx could have been constructed in just three years with 100 people chipping away at a rate of 0.03 cubic metres (one cubic foot) per week.

Using the huge excavation of stone quarried away from the Sphinx enclosure (the pit in which the statue sits), the labourers were also able to construct the nearby Sphinx Temple. Each block that was removed from the Sphinx statue site could have weighed up to 200 tons and would have been transported on rollers.

Until the Thirties, when an archaeologist called Selim Hassan excavated the lower half of the statue, the Great Sphinx remained buried up to its shoulders by sand. Today it stands proudly beside the other monuments of Giza as a testament to the engineering skill of the Ancient Egyptian civilisation.



Layout of the Giza pyramid complex

Take a tour of one of the world's most famous historical sites

01 Queens' pyramids

Of the three smaller pyramids to the south of the Pyramid of Menkaure only the one to the east is actually a real pyramid; the other two are stepped.

02 Pyramid of Menkaure

Khafre's son, Mykerinos, built the smallest of the three pyramids at Giza. Much of the complex remained unfinished, suggesting that his reign was short-lived.

03 Satellite pyramid

Only the outlines of the foundations remain but this small pyramid held shrine artefacts.

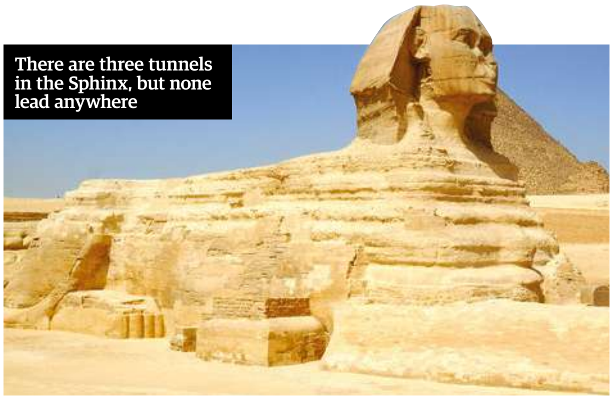
04 Pyramid of Khafre

Khufu's son, Khafre, built the second tallest pyramid at Giza, although it may appear tallest due to its location on a higher section of the Giza plateau.

Inside the Giza pyramid complex

GREAT SPHINX

Height:	20m (65ft)
Length:	73.5m (241ft)
Width:	6m (20ft)
Build date:	c. 2500 BCE



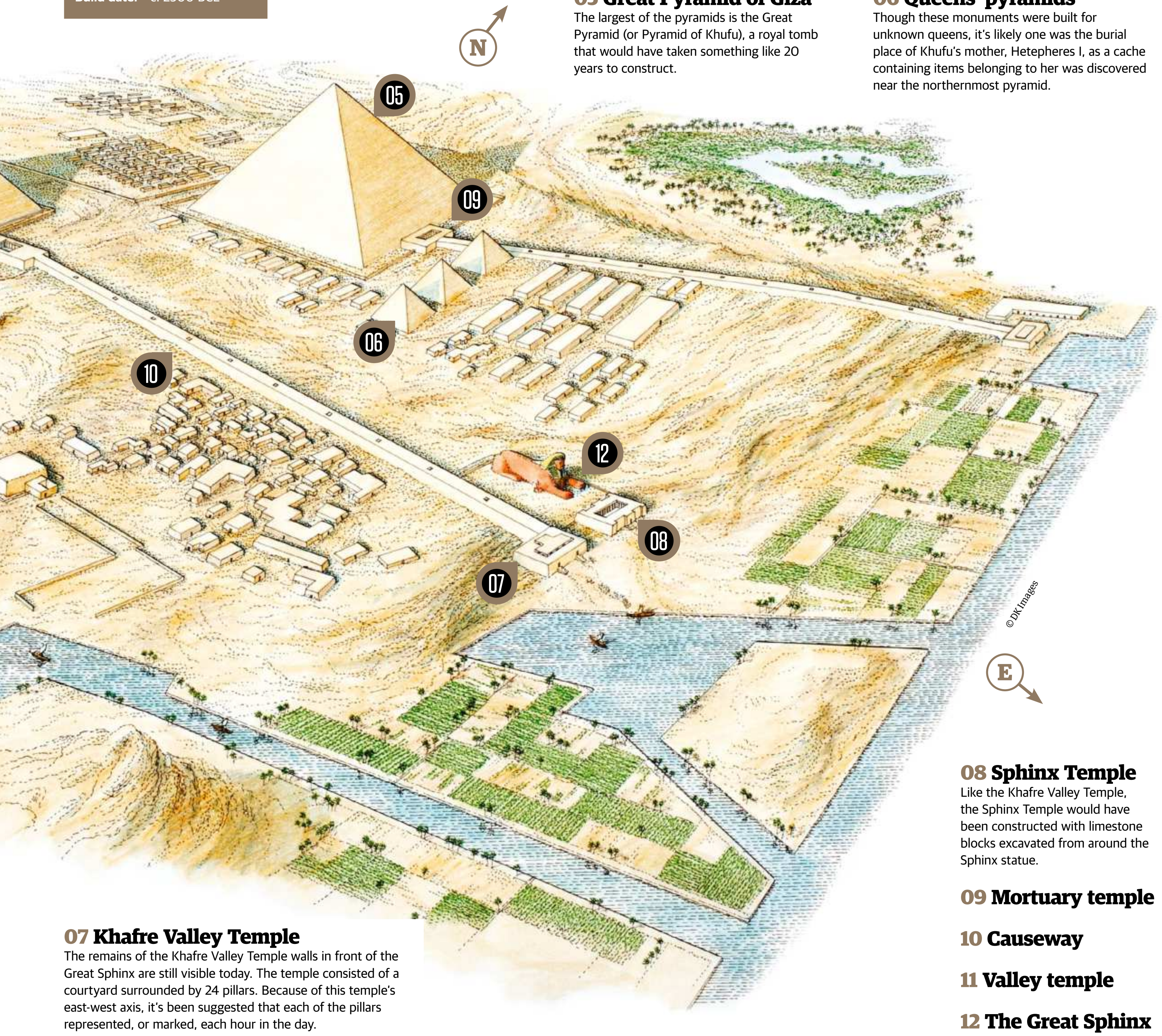
There are three tunnels in the Sphinx, but none lead anywhere

05 Great Pyramid of Giza

The largest of the pyramids is the Great Pyramid (or Pyramid of Khufu), a royal tomb that would have taken something like 20 years to construct.

06 Queens' pyramids

Though these monuments were built for unknown queens, it's likely one was the burial place of Khufu's mother, Hetepheres I, as a cache containing items belonging to her was discovered near the northernmost pyramid.



07 Khafre Valley Temple

The remains of the Khafre Valley Temple walls in front of the Great Sphinx are still visible today. The temple consisted of a courtyard surrounded by 24 pillars. Because of this temple's east-west axis, it's been suggested that each of the pillars represented, or marked, each hour in the day.

08 Sphinx Temple

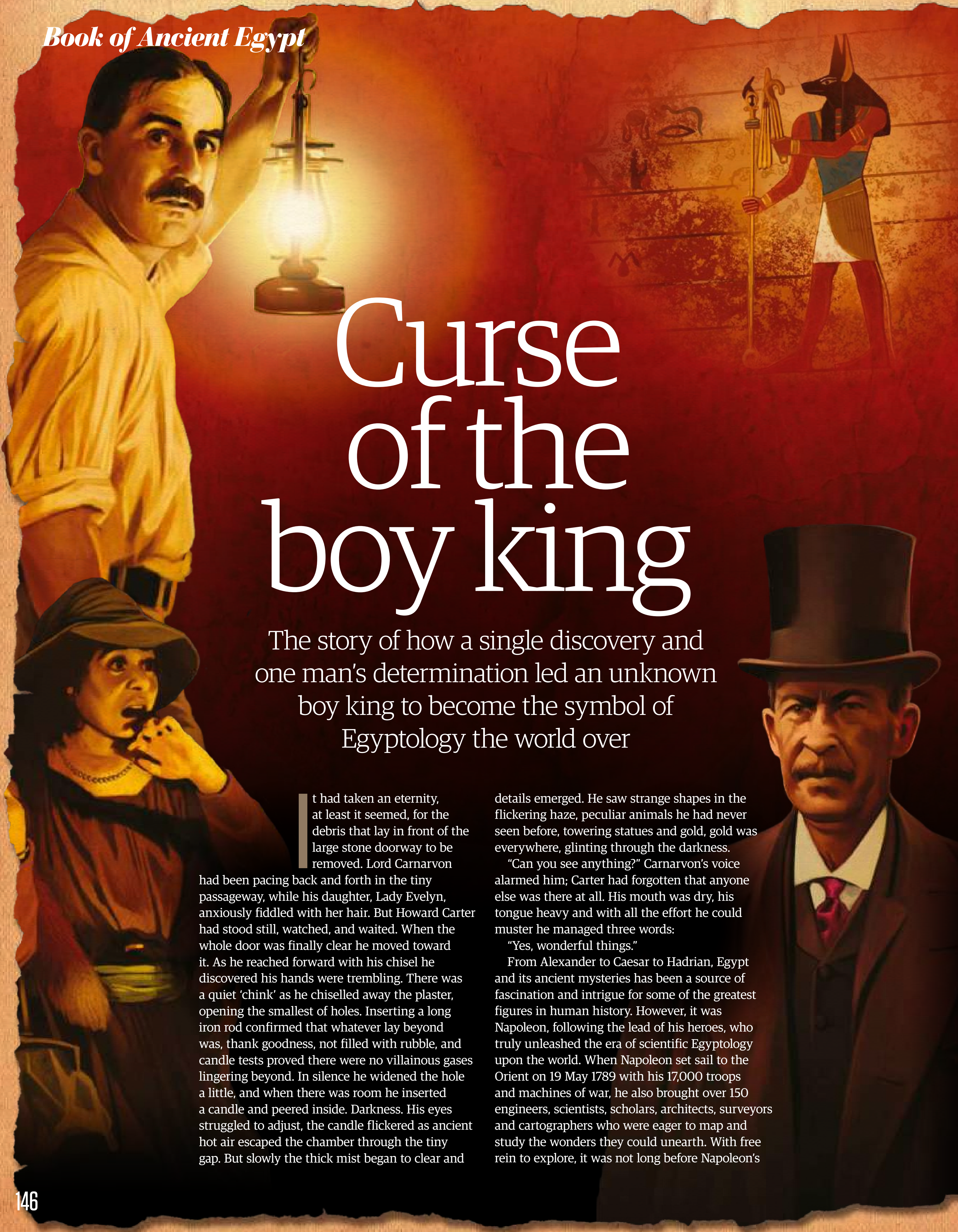
Like the Khafre Valley Temple, the Sphinx Temple would have been constructed with limestone blocks excavated from around the Sphinx statue.

09 Mortuary temple

10 Causeway

11 Valley temple

12 The Great Sphinx



Curse of the boy king

The story of how a single discovery and one man's determination led an unknown boy king to become the symbol of Egyptology the world over

It had taken an eternity, at least it seemed, for the debris that lay in front of the large stone doorway to be removed. Lord Carnarvon had been pacing back and forth in the tiny passageway, while his daughter, Lady Evelyn, anxiously fiddled with her hair. But Howard Carter had stood still, watched, and waited. When the whole door was finally clear he moved toward it. As he reached forward with his chisel he discovered his hands were trembling. There was a quiet 'chink' as he chiselled away the plaster, opening the smallest of holes. Inserting a long iron rod confirmed that whatever lay beyond was, thank goodness, not filled with rubble, and candle tests proved there were no villainous gases lingering beyond. In silence he widened the hole a little, and when there was room he inserted a candle and peered inside. Darkness. His eyes struggled to adjust, the candle flickered as ancient hot air escaped the chamber through the tiny gap. But slowly the thick mist began to clear and details emerged. He saw strange shapes in the flickering haze, peculiar animals he had never seen before, towering statues and gold, gold was everywhere, glinting through the darkness.

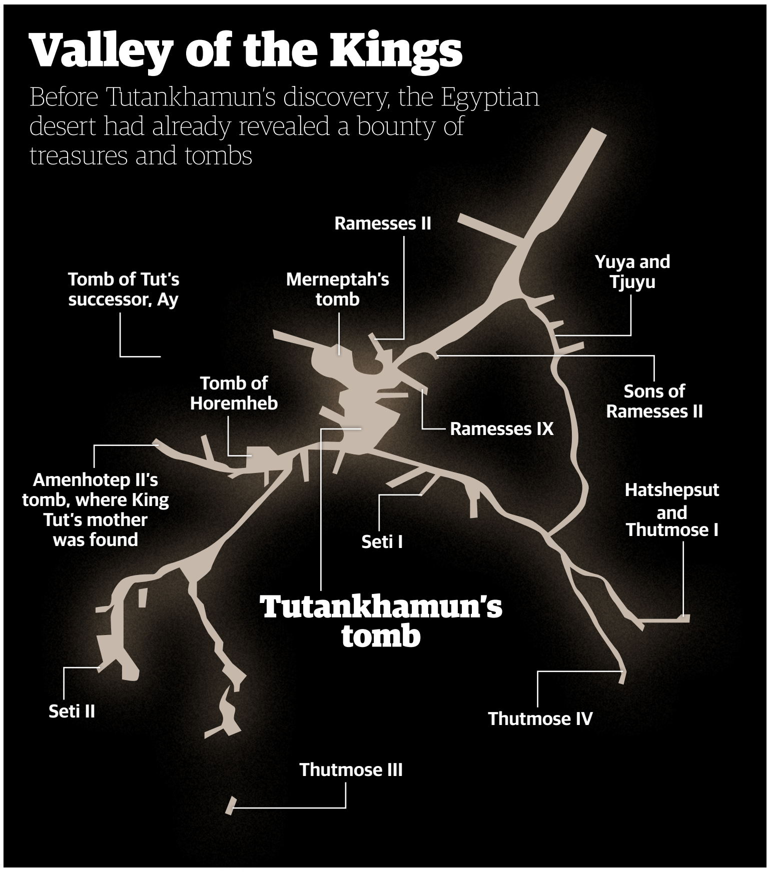
"Can you see anything?" Carnarvon's voice alarmed him; Carter had forgotten that anyone else was there at all. His mouth was dry, his tongue heavy and with all the effort he could muster he managed three words:

"Yes, wonderful things."

From Alexander to Caesar to Hadrian, Egypt and its ancient mysteries has been a source of fascination and intrigue for some of the greatest figures in human history. However, it was Napoleon, following the lead of his heroes, who truly unleashed the era of scientific Egyptology upon the world. When Napoleon set sail to the Orient on 19 May 1789 with his 17,000 troops and machines of war, he also brought over 150 engineers, scientists, scholars, architects, surveyors and cartographers who were eager to map and study the wonders they could unearth. With free rein to explore, it was not long before Napoleon's

Valley of the Kings

Before Tutankhamun's discovery, the Egyptian desert had already revealed a bounty of treasures and tombs



George Herbert, Earl of Carnarvon (right), was one of the era's most famous Egyptologists

adventurers were discovering new tombs in the Valley of the Kings, so named for the abundance of pharaohs who chose it as their final resting place. A thirst for the wonders of Ancient Egypt swept through Napoleon's army, and even the ambitious young general himself began to catch the fever. Over the next century, dozens of tombs, chambers and caches were unearthed by archaeologists and explorers from all over the world. But there was still one tomb that remained hidden: that of a little-known boy king who sat on the throne for less than ten years – Tutankhamun.

Howard Carter was not a likely candidate for the discovery of this vault of ancient treasure that had eluded so many others. The son of an artist, his introduction to Egyptian history came as a result of his own artistic abilities and lack of formal schooling. He was first employed, aged just 17, to copy scenes from tomb walls. He accompanied skilled excavator Flinders Petrie as the latter began to uncover clues about the mysterious Pharaoh Tutankhamun. The young Carter had no idea who this king was, but he felt the buzz surrounding him, and the rumour that somewhere in the vast desert of sand lay his tomb, untouched and bursting full of precious ancient treasures, alighted his boyish curiosity.

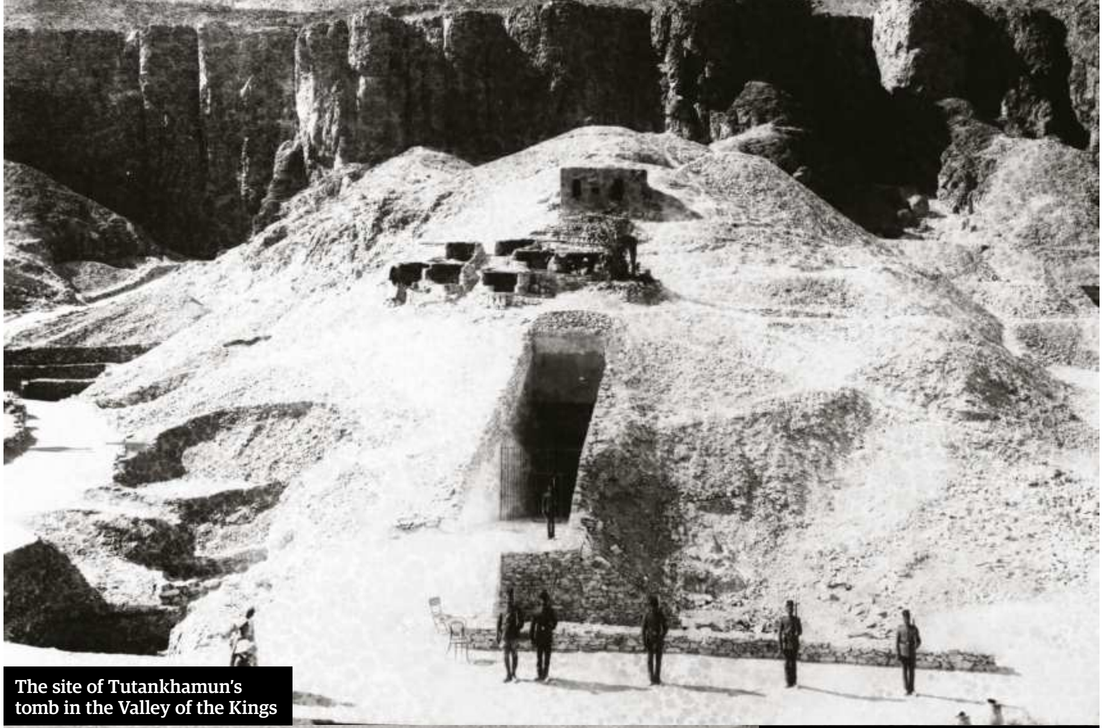
Although he quickly rose through the ranks, Carter's fiery and stubborn personality got the better of him when he refused to apologise after encouraging Egyptian guards to defend themselves against French tourists who had assaulted them. He left the Antiquities Service for good and became a free agent. Meanwhile, Theodore M Davis, a private sponsor of the Antiquities Service, and his team had made a curious discovery in the Valley of the Kings. What they had unearthed was a small site with a few artefacts bearing Tutankhamun's name. The discovery was decidedly underwhelming, but Davis was convinced he had finally discovered the plundered tomb of the king. In his publication, concerning the discovery he wrote, "I fear the Valley of the Kings is now exhausted."

> Having ascended to the throne at only 9 years of age, the mummy reveals that the boy king ruled for only ten years, dying at 19

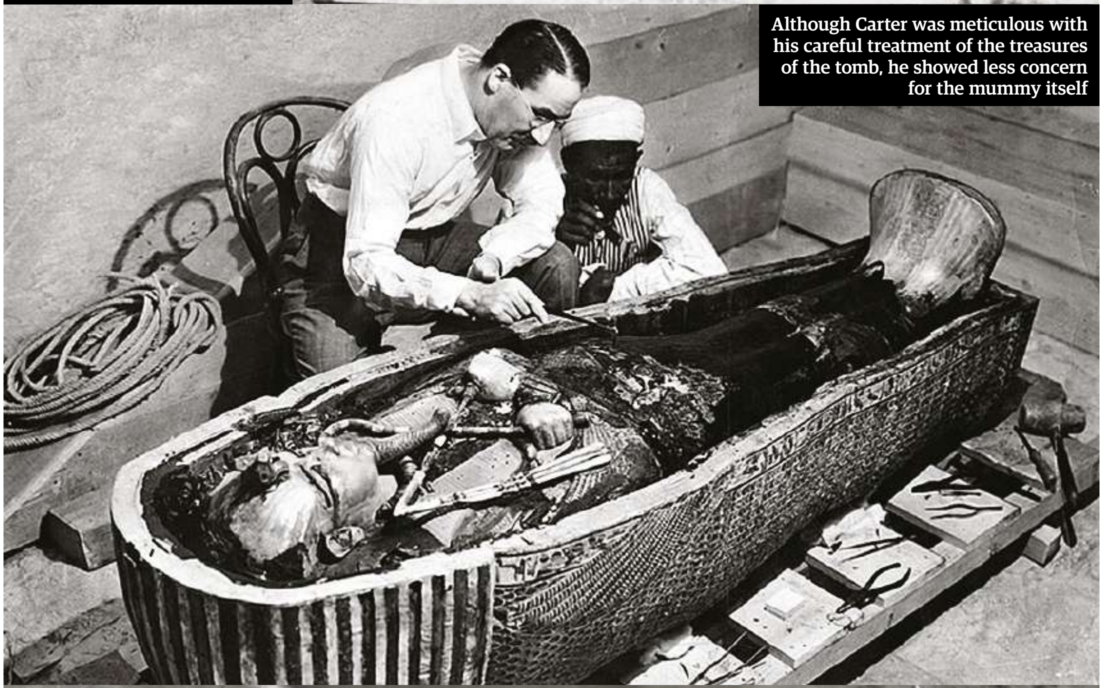
Carter did not agree. Now unemployed and scraping a living by selling his paintings to wealthy visitors, he hardly had the funds required to pursue his suspicions that Davis' discovery was not the true tomb. But he was in luck. The lure of Egypt and its many secrets had drawn in the wealthy but frail George Herbert, Fifth Earl of Carnarvon. Both men were eager to make a spectacular discovery, and both men needed the other's skills and resources to do it. In 1909 they became a team, and when Davis gave up the concession to excavate in the Valley of the Kings in 1914, Carter and Carnarvon leapt at the chance. However, their peers viewed the pair as idealistic and naive, warning them that the only thing that would be discovered in their search would likely be the bottom of the Earl's wallet.

Undeterred, Carter set about searching for the tomb he thoroughly believed existed. Initially interrupted by World War I, Carter was finally free to continue the excavations in 1917, working his way from the surface down to the bedrock of the valley floor. It was long, exhausting work, and it was estimated Carter's team moved 150,000 to 200,000 tons of rubble in the relentless Egyptian sun. But six seasons of digging later and they had still found nothing. Carnarvon was beginning to believe the critics were right. Although initially dazzled by the promises of Egypt and by Carter with his bounding enthusiasm, he had watched the money he had poured into the adventure trickle away with no reward, and he was growing impatient.

Carter managed to persuade his friend and Carnarvon granted him one final season. If he didn't find anything it would be the end of the money, and the end of the search for Tutankhamun's tomb. Extreme times called for



The site of Tutankhamun's tomb in the Valley of the Kings



Although Carter was meticulous with his careful treatment of the treasures of the tomb, he showed less concern for the mummy itself

Digging for a King

Getting funding
Howard Carter convinces Lord Carnarvon to finance a search for the tomb. He begins digging in the Valley of the Kings, but by 1922 Carnarvon permits just one more season of funding.
1917-1922

A step in the right direction
While Howard Carter is temporarily away from the dig site, a step is found carved into the bedrock.
4 November 1922

A royal discovery
Carter discovers the sealed door of the tomb and sees a passage behind. He then sends a telegram to Carnarvon to alert him.
5 November 1922

Wonderful things
Through a tiny hole he glimpses what he describes as a "strange and wonderful medley of extraordinary and beautiful objects"
26 November 1922

Exploration
Carter, Carnarvon and Lady Evelyn notice a sealed doorway and secretly reopen an ancient robber's hole to crawl inside.
27 November 1922

The burial chamber
Carter opens the sealed doorway to the burial chamber and sarcophagus of the pharaoh. It is officially opened the next day.
16 February 1923

The curse begins
Lord Carnarvon dies after a mosquito bite becomes infected. Carter begins liaising with the authorities and press.
5 April 1923

At breaking point
After interference by the authorities, Carter locks the tomb and refuses to return the keys to the French director of Antiquities.
12 February 1924

The long-awaited return
Lady Carnarvon agrees to renounce her claims to the tomb and Carter returns to work. The tomb is opened officially.
25 January 1925

Mission complete
Conservation work on the tomb is finally completed and the treasures are sent to Cairo Museum.
1932

Inside the tomb

Step inside the various rooms and vaults that were found to be contained within the boy king's tomb

01 Staircase

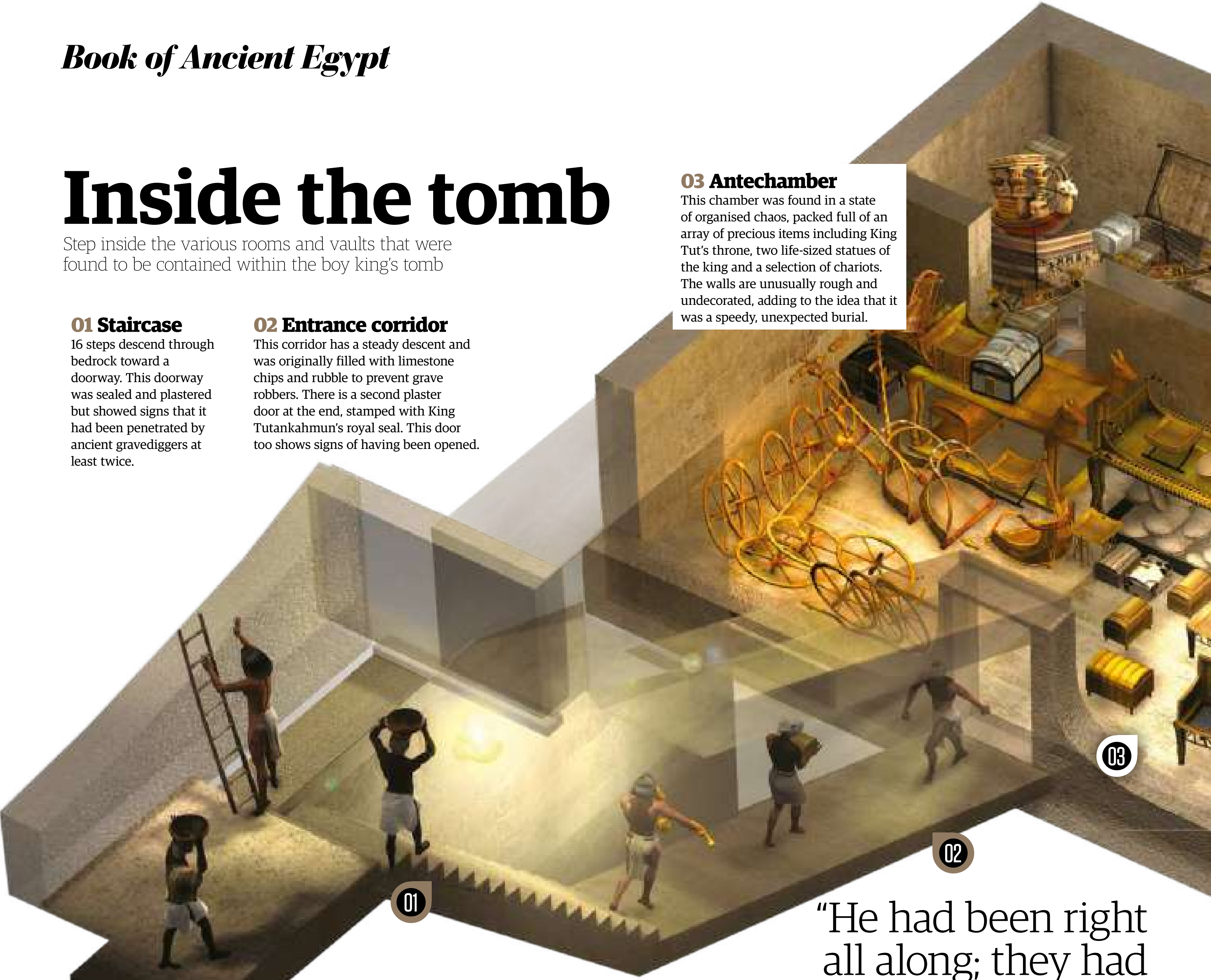
16 steps descend through bedrock toward a doorway. This doorway was sealed and plastered but showed signs that it had been penetrated by ancient gravediggers at least twice.

02 Entrance corridor

This corridor has a steady descent and was originally filled with limestone chips and rubble to prevent grave robbers. There is a second plaster door at the end, stamped with King Tutankahmun's royal seal. This door too shows signs of having been opened.

03 Antechamber

This chamber was found in a state of organised chaos, packed full of an array of precious items including King Tut's throne, two life-sized statues of the king and a selection of chariots. The walls are unusually rough and undecorated, adding to the idea that it was a speedy, unexpected burial.



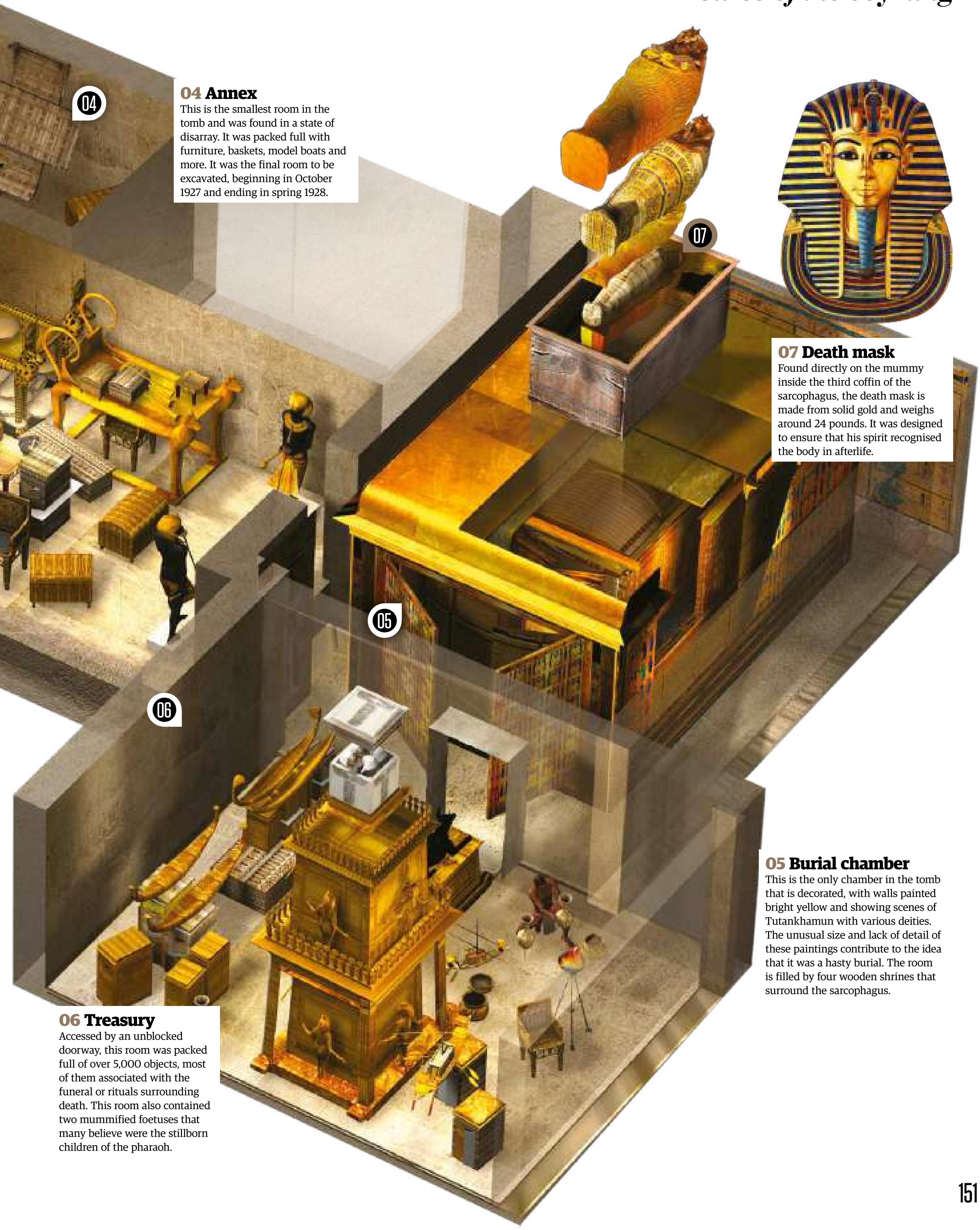
> "He had been right all along; they had found the tomb of the elusive pharaoh"

extreme measures, and Carter focused his efforts on the previously untouched area of ancient workman's huts beneath the entrance to the tomb of Ramesses VI. It had been left untouched because digging there would cause disturbance to the stream of tourists eager to visit the tomb. On 1 November 1922 they began to clear away the rubble and, just three days later, they found a step carved into the rock. Carter and his team followed the steps down and discovered a blocked and plastered doorway with a curious seal upon it. On 6 November Carter sent a telegram to his patron: "At last have made wonderful discovery in Valley a magnificent tomb with seals intact recovered same for your arrival congratulations."

Carter faced what was probably the longest wait of his life. As he awaited the arrival of Carnarvon he pondered what he could have possibly discovered. A man now bitterly accustomed to disappointment, he only allowed himself to conclude that perhaps he had found a dynasty cache. Even when the doorway was fully exposed and the name 'Tutankhamun' could be read, he reasoned that it was he or his officials who had sealed the chamber, and besides, he could see that the tomb had been tampered with by ancient robbers – it could well be empty. It was not until that fateful day, as he stood peering into the chamber by flickering candlelight that he fully understood the magnitude of his discovery – he had been right all along; it was the tomb of the elusive pharaoh.

When the doorway was finally opened it revealed exactly what Carter had described: wonderful things. The newly dubbed antechamber was packed full of an array of treasures, beautiful golden chests, grand chariots, beds carved in the shapes of animals and an abundance of other precious objects. However, Carter quickly noticed there was no coffin. But there were promising sealed doorways on the western and northern walls. For both Carter and Carnarvon the lure of the northern wall, guarded by two statues of the king himself, was too much to resist. Without alerting the Antiquities Service, the two men and Lady Evelyn embarked on a secret nighttime adventure into the burial chamber.

Although their curiosity had been sated, the raiders were keen to hide all evidence of their illegal exploration. They reblocked the hole they had crawled through, and even hid the modern plaster behind a suspiciously placed basket lid. It was a terribly kept secret, and their nocturnal adventure was immediately obvious to all who inspected the tomb. Luckily, with everyone swept up in the excitement of the discovery, there were no further enquiries about the strangely modern plasterwork on the ancient tomb.



04 Annex

This is the smallest room in the tomb and was found in a state of disarray. It was packed full with furniture, baskets, model boats and more. It was the final room to be excavated, beginning in October 1927 and ending in spring 1928.

05 Burial chamber

This is the only chamber in the tomb that is decorated, with walls painted bright yellow and showing scenes of Tutankhamun with various deities. The unusual size and lack of detail of these paintings contribute to the idea that it was a hasty burial. The room is filled by four wooden shrines that surround the sarcophagus.

06 Treasury

Accessed by an unblocked doorway, this room was packed full of over 5,000 objects, most of them associated with the funeral or rituals surrounding death. This room also contained two mummified foetuses that many believe were the stillborn children of the pharaoh.

07 Death mask

Found directly on the mummy inside the third coffin of the sarcophagus, the death mask is made from solid gold and weighs around 24 pounds. It was designed to ensure that his spirit recognised the body in afterlife.

Lord Carnarvon and Howard Carter after the discovery of Tutankhamun's tomb

CT scans and X-rays have attempted to determine the cause of death

What killed King Tut?

He was murdered by his successor

The presence of a piece of bone in his skull cavity led experts to believe that Tutankhamun died from a brain haemorrhage caused by a blow to the head. Recent examination has discredited this theory.

Malaria

A DNA analysis showed malaria to be present in Tutankhamun's system, leading some to believe his weakened body was unable to fight it off. Although this can be a deadly disease, adults often develop immunity to it, so this theory is in some doubt.

A chariot crash

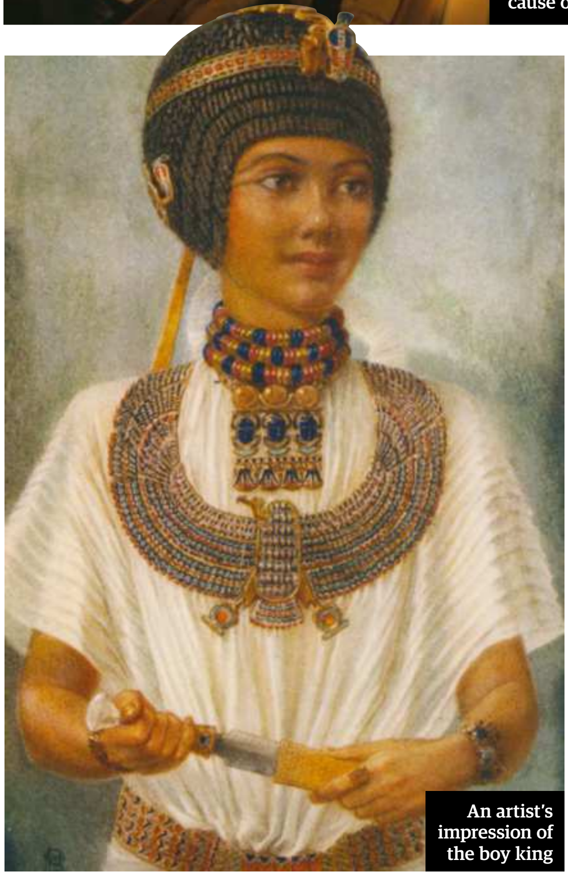
Tutankhamun's body had several injuries down one side. Car-crash experts concluded that the injuries would correspond to death by a chariot crash, which shattered his ribs and pelvis. However, it was later concluded that these injuries occurred after death.

Genetic diseases

A host of genetic diseases are attributed to Tutankhamun's death, including temporal lobe epilepsy. Experts hypothesised that this epilepsy caused a fatal fall that broke his leg, which then became infected.

Killed by a hippo

The fact that Tutankhamun had several broken ribs and that his heart was not embalmed made a case for a injury to the chest as the cause of death. As hunting hippos was a pastime of Egyptian pharaohs, it gave birth to this seemingly outrageous theory.



An artist's impression of the boy king

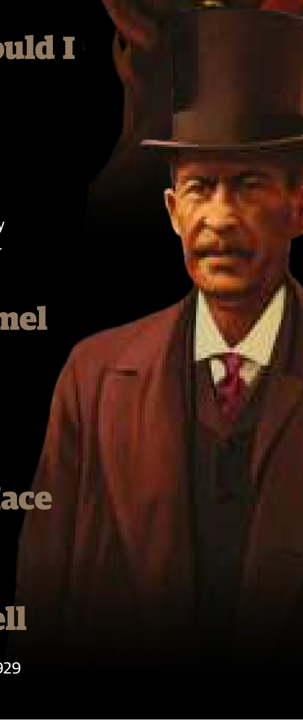
On 29 November the press had gathered for the official opening of the tomb and locals had already started to sell Tutankhamun-themed Christmas cards from makeshift tables set up in the vast sandy expanse of the valley. Although eager to discover what lay within the burial chamber, Carter was dedicated to meticulously clearing and documenting every single item discovered in the antechamber and annex, and of course, he was already very aware of what lay beyond the northern door, for he had already seen it. It took two and a half months to complete the mammoth task. It was a nerve-wracking experience for Carter and his team, as they risked the ancient – and very delicate – artefacts crumbling to dust at their touch. Every single chest they uncovered had to undergo a mini excavation of the seemingly random jumble of ancient items that had been hastily stuffed inside.

When it was finally time to officially open the burial chamber, Carnarvon gave a speech where he, as his brother described, was unusually nervous, "like a naughty schoolboy", quite obviously anxious that their nighttime raid may be discovered. Regardless, Carter breached the doorway and they were able to squeeze through three at a time. The sight that greeted them was astonishing – a great gilt shrine 2.7 metres (nine feet) high filled almost the entire chamber. It was completely overlaid

The excavation of Tutankhamun's tomb was a massive undertaking

Victims of 'the curse'

It wasn't just Carnarvon who supposedly succumbed to the pharaoh's curse…



Aubrey Herbert

Carnarvon's half-brother

Date of death: 26 September 1923

Cause: Blood poisoning

George Jay Gould I

Visitor to the tomb

Date of death: 16 May 1923

Cause: Fever

Sir Achibald Douglas-Reid

X-rayed Tutankhamun's mummy

Date of death: 15 January 1924

Cause: Unknown illness

Prince Ali Kamel Fahmy Bey

Prince of Egypt

Date of death: 10 July 1923

Cause: Shot by his wife

Arthur Cruttenden Mace

Part of excavation team

Date of death: 1928

Cause: Arsenic poisoning

Richard Bethell

Carter's secretary

Date of death: 15 November 1929

Cause: Smothered in bed

with gold and undoubtedly housed the coffin of the king. Beyond what was now obviously the burial chamber, they uncovered yet another room packed with gleaming objects. The tomb seemed to hold treasure upon treasure upon treasure. It was a discovery of the sort that had never been seen before and was unlikely to happen again.

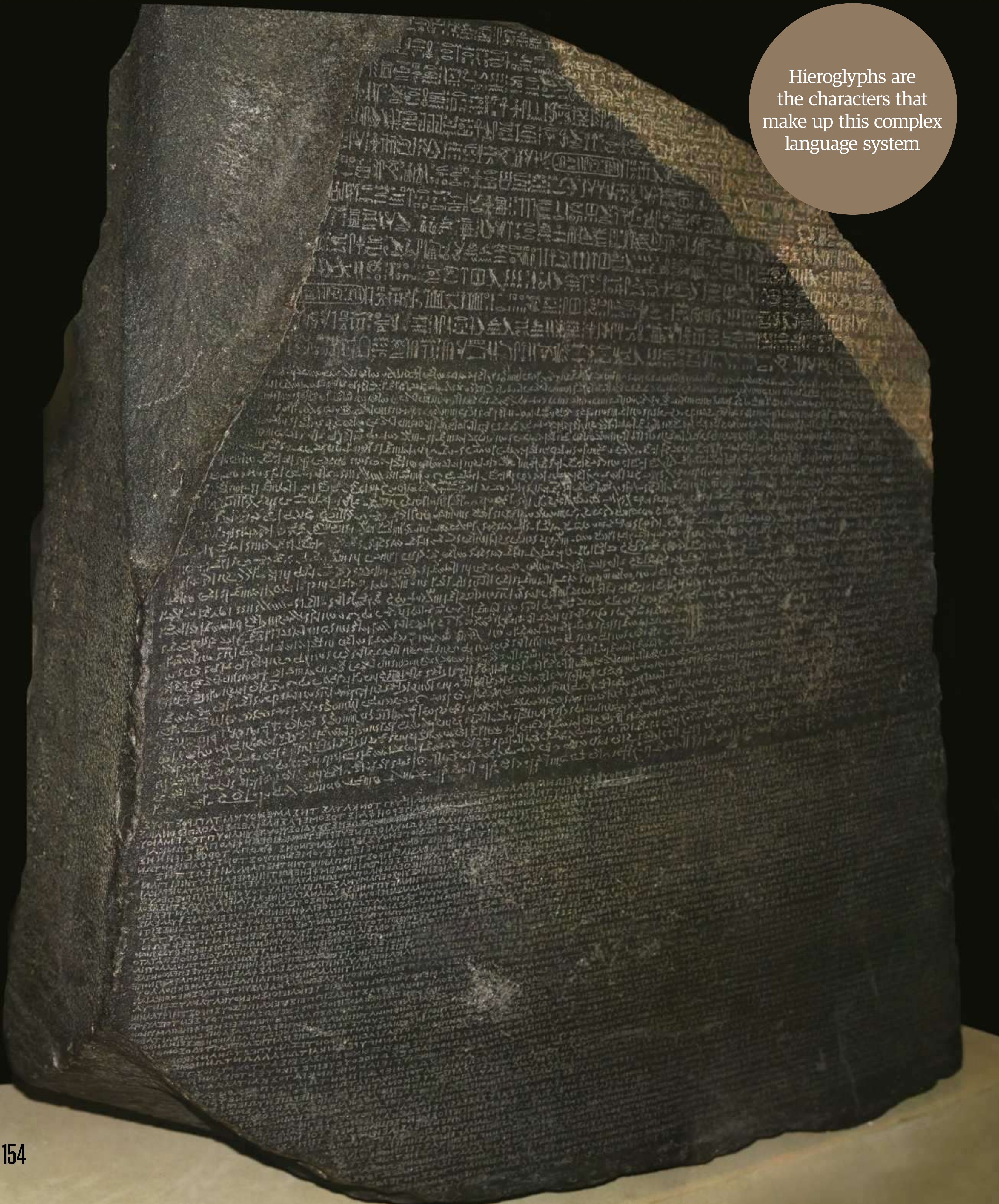
It did not take long for the British press to become consumed by this colossal discovery. News of the ancient treasures spread like wildfire and soon dignitaries and royalty from all over the world descended on the tomb, each one hoping for a private viewing. Anyone with even the slightest connection to any member of the team attempted to exploit it, but the general public and journalists had to make do with watching from beyond the tomb's perimeter wall. However, this position in itself provided a kind of spectacle, as the crowds watched eagerly as an array of mysterious items were removed from the tomb. Every day more and more tourists poured into Luxor, and hotels even set up tents in their gardens to accommodate the unprecedented demand.

On 5 April 1923 disaster struck – Carnarvon was dead. The source of his passing was an infected mosquito bite he had nicked with his razor, but to the public and press who had become so enthralled with the dark mysteries of Ancient Egypt there was only one explanation – the tomb was cursed. An array of 'experts' came forward, claiming in the tabloids that the Earl's death was certainly linked to his penetration and plundering of the solemn resting place of an ancient and powerful king. Numerous stories of dark and mysterious events added fuel to the gossip fire – such as Carter's yellow canary being killed by a cobra after the discovery of the tomb, and all the lights in Cairo going out the moment Carnarvon shuffled off his mortal coil. There were tales of an ancient script written above the entrance of the tomb: "Death comes on swift wings to him that toucheth the tomb of the Pharaoh", and to a gripped public, this curse of the mummy was becoming a reality.

It is estimated that around 3,500 items were discovered within the fabulous tomb of Tutankhamun

The true – and rather more mundane – facts of the situation were, of course, ignored. Carnarvon was already ill and frail and had reached the average life expectancy of 57 at the time of his death. Cairo's electricity supply was notoriously unreliable, and no such message of ancient horrors existed. But for the press who were struggling to keep the public entertained by the slow moving events of the tomb, the human tragedy was gold. A close eye was kept on anyone vaguely associated with the excavation, and the press quickly published details of their untimely and shocking deaths. For Carter enough was enough. Time and time again he denied the existence of the curse, and said instead that "there was probably no place in the world freer from risks than the Tomb." But the public were having none of it; as far as they were concerned, the curse was very much real.

Although the legend of a curse was obviously not the ideal result, Carter, with his bounding fascination for all things Egyptian, probably would have been delighted by the mania for Egypt that spread across the world after his discovery. Carter's treasures remained in the Cairo Museum until the Sixties when they travelled all around the world. In the most popular exhibition in its history at the British Museum, over 1.6 million people queued for over eight hours to glimpse the ancient wonders of the boy king's tomb. Importantly, if it weren't for the determination and self-belief of one man, they may still lie buried today.



Hieroglyphs are the characters that make up this complex language system

Decoding the hieroglyphics

How the most mundane of demolition jobs led to a discovery that would go on to unlock the secrets of a much admired ancient society

The written language of Ancient Egypt is a visually enchanting form and, as such, it has held understandable allure in the imaginations of scholars and non-scholars alike. It's a written language that just seems so very different to anything that we recognise in modern times. The hieroglyphs attest to the human capacity for invention, creative flair and the desire to express as precisely as possible what we think and feel, and perceive in our immediate and less immediate circumstances. Just what do all of those carved images mean, though? Who wouldn't enjoy solving such a puzzle?

Imagine, then, being part of the race to crack the code of a mysterious language that dated back several thousand years BCE. Imagine the excitement, the astonishment and wonder when the opportunity to finally do so presented itself right on the cusp of the 19th century, when the Age of Enlightenment had established its intellectual territory and the thirst for evidence-based enquiry in the pursuit of knowledge had taken hold of Europe and the New World. The discovery of the Rosetta Stone was a huge moment in an era of thought and intellectual activity. And, in working out what the fascinating inscriptions on the Rosetta Stone meant, the modern world would be compelled to reconnect with an ancient world. In a time in which emerging rational modes of thought were developing, they interwove with the intricate spiritual and religious tenets and narratives of a culture beginning to be rediscovered.

There is always a thrill to be found in cracking a code. Can you imagine, then, the excitement that rolled like a wave across the archaeological and scholarly community when the realisation was reached about the nature of the tablet that had been discovered? Picture the moment in the Egyptian desert in 1799. French soldiers, led by Pierre François Xavier Bouchard, under the auspices of Napoleon Bonaparte, unearth a chunk of granite rock that measures 112 centimetres in height, 75 centimetres in width and is 28.4 centimetres thick.

Over the next quarter of a century, English and French scholars worked tirelessly to decode the treasure. This type of scholarly competition reflected something of the much broader tension that had existed between France and Britain at the time. In an attempt to weaken Britain, Napoleon had decided on an offensive on British claims in Egypt in order to disrupt Britain's hugely successful venture in North Africa and emerging connections to India.

The artefact was named the Rosetta Stone after El Rashid – the location in the Nile Delta, just about 35 miles north of Alexandria, where it was discovered. And this inconspicuous chunk of granite rock has become a globally recognised archaeological treasure. Relatively swiftly after its discovery, it granted access to the thought- and idea-scape, daily life and religious systems of a culture that has entranced and energised people's imaginations for centuries. The Rosetta Stone, then, provided something of a quantum leap by allowing scholars to understand with great clarity, and then share, the story of Ancient Egypt.

The Stone itself did not narrate the history of Ancient Egypt or anything equally expansive. No: the stone itself records a public decree made by the teenage pharaoh, Ptolemy V. However, this very particular text would eventually allow translators to work out the linguistic system on which Egyptian writing was based. It became the key to unlocking a long-lost corridor of knowledge through to the time of the Ancient Egyptians. We use that term to distinguish the culture from an even older civilisation that had developed around the River Nile. As Dr Penelope Wilson has commented, "Ancient Egyptian is classed by linguists as an Afro-Asiatic language. This means that it is related to North African languages such as Berber and Cushitic, and to Asiatic (or Semitic) languages, such as Arabic and Hebrew."

In 1810, the Royal Society of Antiquaries in London published a document entitled *Rosetta Stone, brought to England in 1802: account of by Matt. Raper*. Among the documents contained in the account was a letter dated 30 May 1810, written by Major General H Turner to Nicholas Carlisle, Secretary to the Society of Antiquaries that: "By the 16th article of the capitulation of Alexandria, the siege of which city terminated the labours of the British army in Egypt, all the curiosities, natural and artificial, collected by the French Institute and others, were to be delivered up to the captors (the

Sacred and ordinary expression

Writing is an act of recording thought, perception, value systems, memories, aspirations and fears. It's a way of encompassing all of the inner, and outer, worlds of human experience. For Ancient Egyptian culture, writing was certainly a way to record the history of the royal family. Writing was committed to both stone and to papyrus, and archaeology has gifted us with what are referred to as the 'Hekanakhte Papers', which detail aspects of agricultural life in the form of letters written on papyrus by a farmer to his family during a period when he was away from home.

A subject typically committed to written memory was spells. Egypt was a culture that, to some degree, combined an affinity for magic with a fascination for the world of reason and evidence-based thought and investigation. One of the key texts that somehow survived the immense passage of human history was *The Book of the Dead*, dating from the 16th Dynasty, which was discovered in the coffin of Queen Mentuhotep. *The Book of the Dead* powerfully combines writing and illustration for a culture that embraced the sombre reality of death and the ceaseless importance of a disciplined and ordered life. *The Book of the Dead* is comprised of 200 spells that were written with the intention of helping the deceased negotiate the challenges of reaching the afterlife.

British)... From the French scavans I learnt, that the Rosetta Stone was found among the ruins of Fort St Julien..."

This Royal Society of Antiquaries report also includes the Rev Stephen Weston's analysis of his translation of a section of the Greek text included in the decree recorded on the stone. Weston's report certainly provides a very full sense of the issues that a king would typically engage with and provides us with a detailed sense of the conditions in which the people of Ancient Egypt lived. Weston's translation is entirely fascinating, so it's feasible to quote an excerpt from any part and find interest in it. However, here is a selection from Weston's translation, as it was published in the RSA's account: "[Ptolemy] dealt out justice to all, like the great, great Hermes. He ordered also that all men who came back to their country in arms, and all disaffected persons who returned to Egypt in times of confusion should remain on their own estates."

> There are over 700 characters or letters in the hieroglyphic alphabet compared to 26 in the English language

During the 18th century, European scholars committed themselves to decoding and deciphering the hieroglyphs available from excavated and found ruins of Ancient Egypt. At a time of increasing modernisation in the world, hieroglyphs began to exert significant force on the imagination of scholars. In part, hieroglyphs were a language of mysticism. As the British Museum notes about the scholastic culture of the 18th century, "People think that hieroglyphs were symbols recording ideas rather than the sounds of a spoken language."

For the people of Ancient Egypt, their name for hieroglyphic marks was 'the divine word'. Their belief was that Thoth, the god of wisdom, had bestowed on them the ability to write. Hieroglyph is a word that comes to us from Ancient Greece and it means 'sacred carvings'. Certainly, plenty of Greek scholars and travellers ventured across the Mediterranean to Egypt. Some scholars have proposed that Egyptian writing began in about 4000 BCE, evolving from writing that was already being practised by that time in Mesopotamia – a region comprising Assyria, Babylonia and Sumer and considered as 'the cradle of civilisation'. Today, we know this region as Iraq. However, because the written forms are so different, other scholars have proposed that Egyptian hieroglyphs developed independently of Mesopotamian writing.

Over 700 signs comprise the building blocks of Egyptian hieroglyphic expression, and the Rosetta Stone allowed scholars to fast evolve their facility to translate the hieroglyphs. The Rosetta Stone includes six identical cartouches, and it was this detail that would draw the attention of Thomas Young when he set about attempting to understand what the treasure was telling the world that had rediscovered it. Young's 'rival', the historian and linguist Jean-François Champollion, would go on to identify that some of the writing was an alphabet and other parts served a syllabic function. He also found that some text was determinative, meaning that it represented an entire idea or object that had already been described.

The Rosetta Stone: discovery to decipherment

Foiled!
The French army is prevented, by a British blockade, from leaving Alexandria with the newly discovered Rosetta Stone.
1799

Proof!
Jean-Joseph Marcel creates the very first proof sheets of the Stone and they are sent to the National Institute in Paris.
January 1800

International interest
Baron Silvestre de Sacy studies a copy of the Stone's Greek text. He writes a letter of his findings to the French Ministry of the Interior.
1801

Taking the credit
English scholars seek to underplay the French contribution to the Rosetta Stone's decoding. A French translation of the text on the Stone is produced.
1800-1802

Back to England
The British take possession of the Rosetta Stone from the French after the latter surrender Egypt. A Latin translation of the Stone is made.
1801

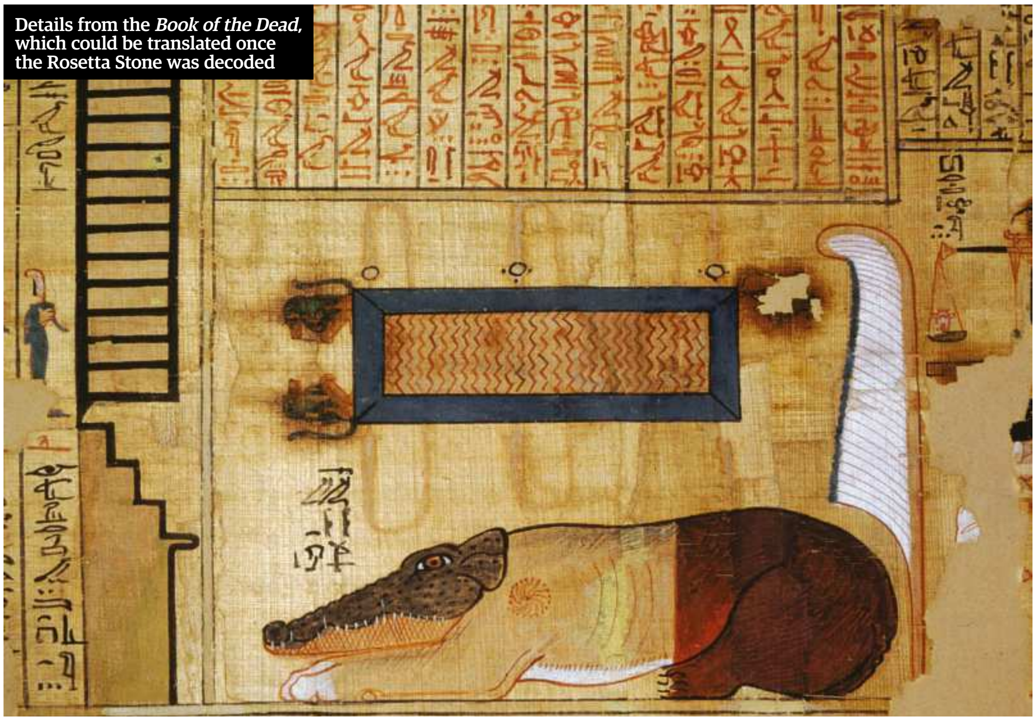
Pioneering effort
The Stone arrives in England in February 1802. Reverend Stephen Weston completes the first English translation of the Greek text on the Stone.
1802

The hieroglyphic language of Ancient Egypt is a time machine that takes us back to 5000 BCE when the first versions of this language system were marked by hunter communities in the Western Desert of Egypt. In these very earliest hieroglyphs we see depictions of cattle and farmers and the motivation behind recording aspects of their lives was to memorialise these details of life that held most importance for them.

Key to understanding hieroglyphs is recognising that they function as ideograms. Ideograms are, as Egyptologist Ian Shaw explains, "signs employed as direct representations of phenomena such as 'sky' or 'man') as well as phonetic signs representing the sound of all or part of a spoken word…"

Hieroglyphs didn't only provide factual information. They also allowed for creative and artistic expression and interpretation. Indeed, some hieroglyphs are described as 'determinative' because a given hieroglyph determines the full meaning. Hieroglyphs were most particularly used on temples and the great public buildings and monuments of Ancient Egypt. They ceased being used beyond the Fourth century BCE and,

The decree issued on behalf of Ptolemy V is inscribed on the Rosetta Stone, from top to bottom, in Ancient Egyptian, Demotic and Greek



Details from the *Book of the Dead,* which could be translated once the Rosetta Stone was decoded

© Alamy

Rosetta go-getters

Two decades after its discovery, two scholars undertook the intellectual adventure to unlock the rock

Thomas Young

Jean-Francois Champollion

At the heart of the race of intellects scrutinising the Rosetta Stone was the rivalry between Thomas Young, an English physicist, fascinated by Ancient Egypt, and French scholar and linguist Jean-François Champollion. Young was such a bright young thing that he had even earned the nickname of 'Phenomenon', having discovered the wave properties of light before proceeding to illuminate the world on the subject of Ancient Egypt.

For many involved in decoding the Rosetta Stone, Young shared their understanding that the hieroglyphs were a form of picture writing. In an attempt to develop a more thorough understanding of the past's granite gift to the present, in 1814 Young focused his efforts on a single cartouche. He was able to cross-reference the cartouche with the Greek script, judging that the Egyptian writing was referring to the late era pharaoh, Ptolemy V. The specific was allowing Young to think more universally: Young described his breakthrough work in an article for the 1819 edition of the *Encyclopedia Britannica.*

It was Champollion, however, who achieved a full translation of the hieroglyphic material. Champollion's lecture of 10 May 1831 was a critical moment, in which he observed that: "The translation of [the Greek], which contains a decree issued by the priests of Egypt, who had gathered in Memphis to render homage to King Ptolemy Epiphanes, made it completely certain that the two Egyptian inscriptions on the upper part of the stone contained the truthful expression of the same decree in Egyptian language."

Text message
British scholars send copies of the stone to The Vatican, the Society de Propaganda Fide, the Imperial Library in Vienna and the Academy at Madrid.
July 1802

Alphabet breakthrough
Swedish diplomat and scholar Johan David Åkerblad compiles a rudimentary Egyptian 'alphabet' and a list of Greek and Egyptian proper names as they appear on the Rosetta Stone.
1802/03

The Phenomenon
Thomas Young commences work translating the Stone. He determines that the direction in which hieroglyphs are looking indicates the direction in which one should read them.
1814

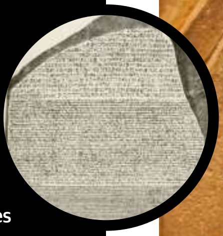
Young's report
Thomas Young publishes his research in the Supplement to the *Encyclopedia Britannica*. The research is 20 pages long and simply entitled 'Egypt'.
1819

Pushing the envelope
On 10 May 1831, Jean-François Champollion commences delivery of his course on archaeology at the College de France, with his first lecture focused on his analysis of the Stone.
1831

Where's home?
Debates regarding ownership of the Rosetta Stone have been ongoing since its discovery. Egypt wishes to have the Rosetta Stone repatriated.
Ongoing

The journey to interpreting the Rosetta Stone

Summer 1798



Napoleon Bonaparte's army engages in an attempt to defeat British troops in Egypt. Napoleon is also interested in the archaeology of the North African country, and a thousand civilians set to work to unearth what treasures might be hidden from view. On 24 July, Napoleon enters the Egyptian capital and on 22 August establishes The Institute of Egypt with a focus on four disciplines: Mathematics, Physics, Political Economy, and Literature and the Arts.

19 July 1799

Fort Juliet, near the city named El Rashid. Soldiers are expanding the size of the fort and in undertaking this work they demolish an ancient wall. French officer Pierre François Xavier Bouchard supervises the work. The discovery of a stone is made on Bouchard's watch. The stone is damaged. It is missing the corner of its upper left-hand section. Initial research into the stone is commenced during that summer.

September 1799

The *Courrier de l'Egypte* publishes the first publicly available news of the discovery of the Rosetta Stone. The article draws together initial research undertaken at the Institute of Egypt. Scholars Jean-Joseph Marcel and Remi Raige determine the cursive Demotic text on the stone, but at this stage cannot decipher it. In August 1800, study on the stone begins at the Institute of Egypt in Cairo. Inevitably, perhaps, arguments quickly begin to develop around ownership of the treasure.

1801

In 1801, with the British having defeated Napoleon's army in Egypt, the Rosetta Stone arrives at the British Museum in London, where scholars then continue to study it. The Greek text is readily translated and scholars identify that each section narrates the same information. This is a critical realisation: it means that the scholars understand that they will be able to translate the meaning of the hieroglyphics. The Rosetta Stone records a decree from pharaoh Ptolemy V that dates from 196 BCE.

© ThinkStock

> "The Stone outlines the numerous benefactions decreed by Ptolemy V during the ninth year of his reign"

by virtue of becoming rare, they took on a special resonance and cultural value as a 'lost' language.

The Rosetta Stone comprises three types of writing, each of which recorded what has been entitled The Memphis Decree. Having been the capital city of Ancient Egypt, Memphis was located just south of the Nile Delta, 15 miles to the south of Cairo. The contents of the decree refer to the young pharaoh Ptolemy V, who the Greek text describes as follows: "King Ptolemy, living for ever, the Manifest God whose excellence is fine..." It continues in Egyptian hieroglyphs in the uppermost section; the middle section shows Demotic Egyptian writing (used for document writing rather than writing about sacred subjects); and the lowest third shows Ancient Greek text. The Rosetta Stone is a veritable search engine of the Ancient Egyptian time.

Professor Kathryn A Bard has explained that Egyptian writing was borne out of royal administrative requirements. Widely understood to have been written by priests at Memphis, the Stone outlines the numerous benefactions decreed by Ptolemy V during the ninth year of his reign. As such, the text on the Rosetta Stone commemorates Ptolemy's reign.

Historical research and scholarship, like scientific enquiry, builds and develops on what has come before – and, as in science, even long-standing theories can, necessarily, be shown to be inadequate and developed into new concepts. When work began on deciphering the hieroglyphic content of the Rosetta Stone, scholars took some confidence from their already well-established understanding of Greek.

Critical to our thinking about how hieroglyphs functioned in their place and time is to know that they were considered to possess power enough to affect the world. Now, that's respect for the written word!

It's certainly true that some discoveries don't necessarily get the recognition during the original moment in time, and the unearthing of a slate-like stone in 1898 by British Egyptologists James Quibbell and Frederick Green failed to capture the general public's imagination in the way that the discovery of the Rosetta Stone had done, or the visually spectacular King Tutankhamun death mask would later do. The slate stone, quickly named The Narmer Palette, was visually unassuming (relatively speaking) but has been of major importance, like the Rosetta Stone, in allowing us access to a culture's written expression of thought.

What could be more of a testament to the Rosetta Stone's powerful effect on scholarship and on our imaginative response to Ancient Egypt than this: on 2 March 2004, the European Space Agency launched a spacecraft named Rosetta. On board rode a probe named Philae, which was programmed to land on a comet (which it achieved in late 2014). The impulse behind decoding an ancient civilisation has found another life in decoding the cosmos.

> Only the educated scribes were able to write using hieroglyphs. They used shorthand 'hieratic' writing

Wondrous words revealed

Over 700 hieroglyphs can be combined to create endless meanings

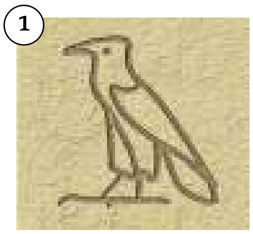
Ancient Egyptian hieroglyphs would be written either from top to bottom across the surface of a page or of stone. Across the page, hieroglyphs would be written from right to left or from left to right. The key to reading a hieroglyph is this: if the ideograms of animals, birds or a person is facing left, then you must read from left to right. If the animal, bird or person faces right, then you must read across from right to left.

The hieroglyphic system uses over 700 signs. No vowels are shown in hieroglyphic form, only consonants. As the British Museum explains, hieroglyphs function as "sense indicators, such as a boat following the sound *dpt* which was the word for boat." There was also a complementary form of writing called hieratic (by Egyptologists) and this was a cursive (joined) script used for writing on papyrus as a kind of shorthand.

The alphabetic hieroglyphs comprise 24 'letters' represented by images of specific objects and entities. For example, a vulture represented the letter 'a'. In hieroglyphic text, any time that a royal name was being written, it was inscribed within an oval shape that we know as a cartouche. Along the bottom of the cartouche was drawn a horizontal line; scholars have suggested that this represents the flat surface of the Earth and that the arc of the oval outline shows the journey of the sun through the course of a day. The cartouche form is an emblem of how a king's reign extended across the land (the flat line) over which the sun passes (the curve of the cartouche).

During the mid-Fourth Dynasty, hieroglyphic writing reached a particular level of refinement and was then used on monuments for public display.

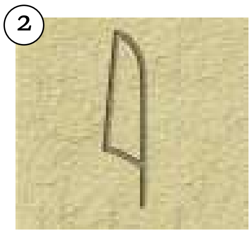
①



ꜣ ('ahhh')

Egyptian vulture. This ominous bird is associated with both battlefields and graveyards.

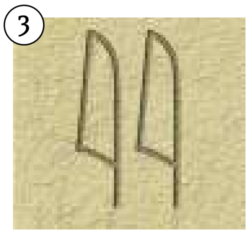
②



i

A flowering reed. The reed was used to make arrows and writing tools.

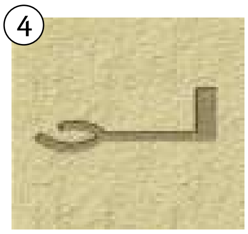
③



y ('eee')

Two flowering reeds or strokes that may have represented the sound of the wind on rushes.

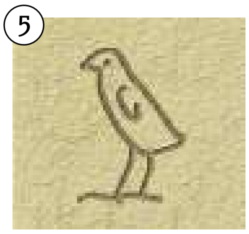
④



c (e)

The arm is often used in the Egyptian language to represent might or power.

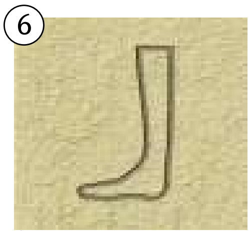
⑤



w ('ooo')

The quail chick adds a pleasant sound. It is often employed among signs that represent time.

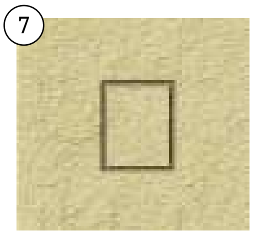
⑥



b

The foot and leg. Egyptians became familiar with human anatomy through mummification.

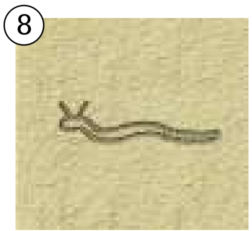
⑦



p

A seat, stool or throne. A sign in Ancient Egyptian used frequently in royal titles.

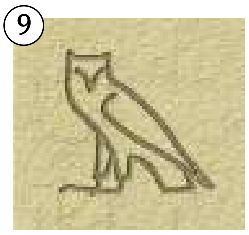
⑧



f

The horned viper is one of many snakes used in Ancient Egyptian. It is often attached to a verb.

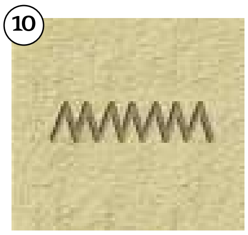
⑨



m

The owl is a common letter. It is rare to see the full face of any creature in imagery.

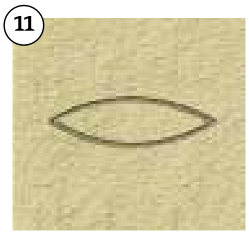
⑩



n

A water ripple is used to note transience; the words 'to' and 'towards' often contain this.

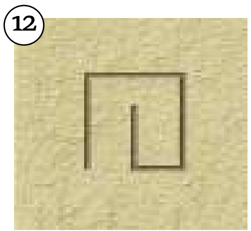
⑪



r

R is shown as a mouth. The letter is used in the words 'recitation', 'to eat' or 'to speak'.

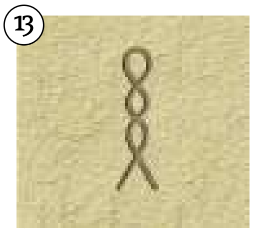
⑫



h

There are various 'h' sounds in the alphabet. This sign shows a rural shelter or a house.

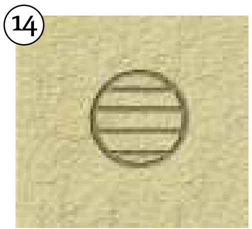
⑬



h (emphatic 'h')

A twisted piece of flax. Flax was a common material in Ancient Egypt.

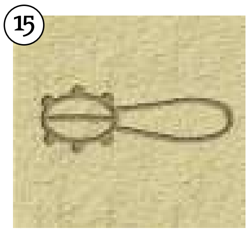
⑭



h (as in hock or lock)

The placenta can be found in many words, including those that deal with fortune and smell.

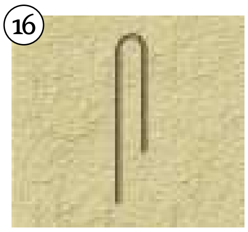
⑮



h ('ich')

The belly of an animal; this letter is used in words that denote the physical form.

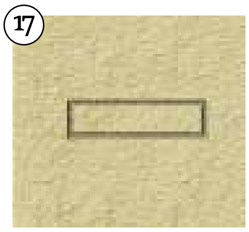
⑯



s

A door bolt and a folded sheet of cloth. It sounds like the English 's'. It has several different variations.

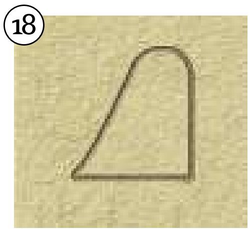
⑰



s ('sh')

Water features were a symbol of affluence; upper-class villas were designed with pools.

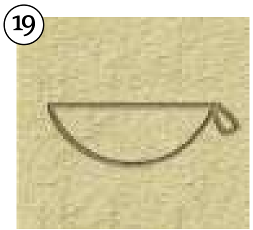
⑱



k (like 'qu' in 'quaint')

The hill sign is used in the words 'tall', 'high' and 'exalted', as well as 'high ground' or 'summit'.

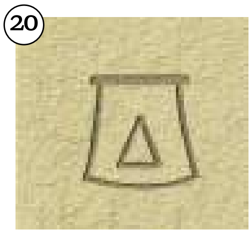
⑲



k

A reed basket with a handle. This can be used in many contexts and is employed as the pronoun 'you'.

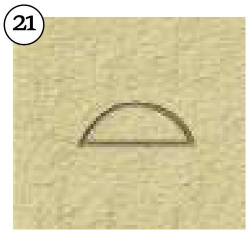
⑳



g

The Egyptians were fond of wine. The sign of this jar stand is transliterated with a hard 'g'.

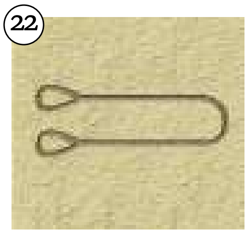
㉑



t

Bread was the most basic food in Egypt; here we see a small loaf of oven-baked bread.

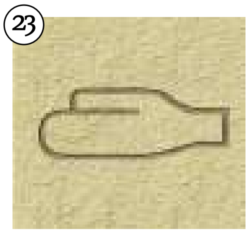
㉒



t ('tsh')

Tethering rope. The Egyptians had 38 signs for ropes and baskets. 'T' is also a pronoun.

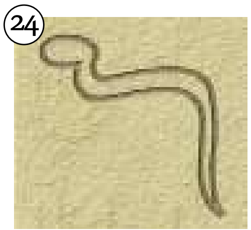
㉓



d

Human hand. There are 63 signs for the human body. This sign was used for words of action.

㉔



d (dj)

Snakes were feared creatures. This letter is often used in words of declaration or recitation.

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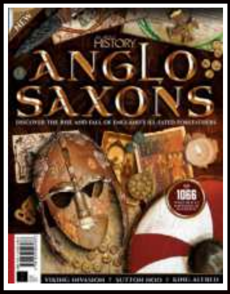
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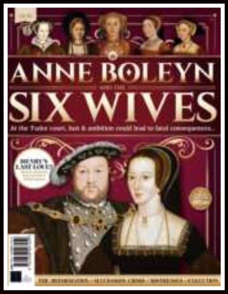
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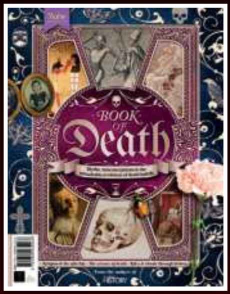
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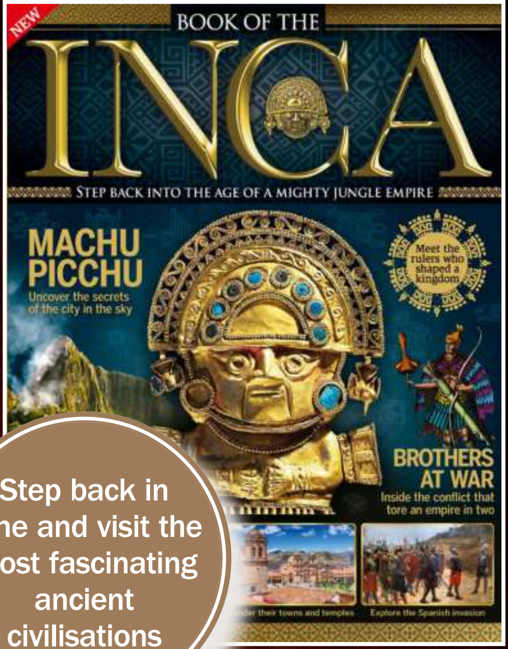
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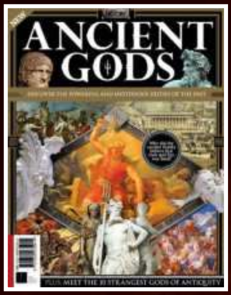
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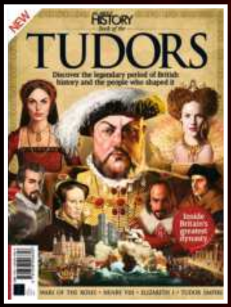

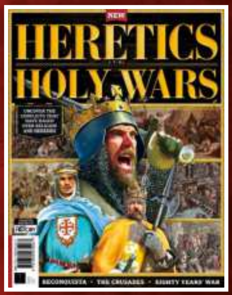
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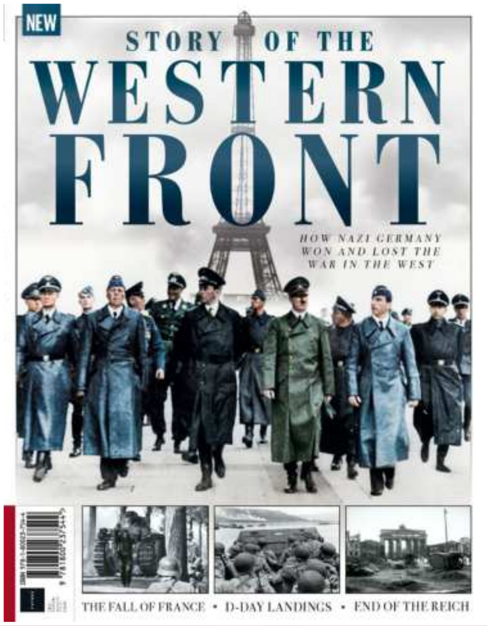
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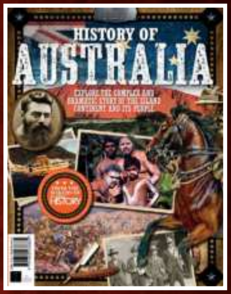
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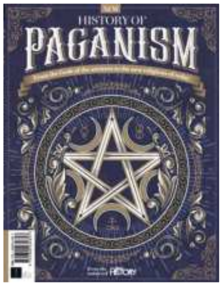
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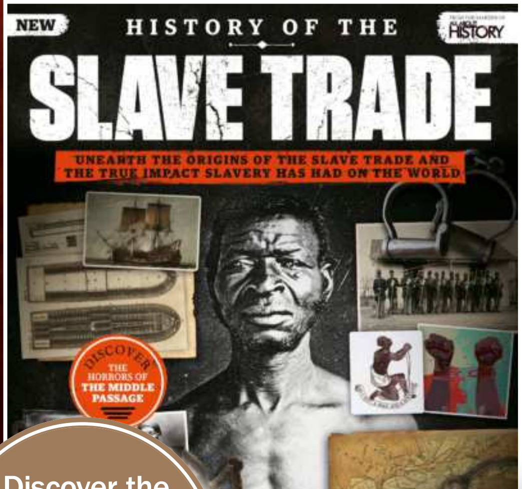
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